

# THE MICHIGAN FARMER,

A WEEKLY JOURNAL OF AFFAIRS

Relating to the Farm, the Garden, and the Household.

NEW SERIES.

DETROIT, SATURDAY, MARCH 12, 1859.

VOL. 1., NO. 11.

## The Michigan Farmer,

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Publication Office, 130 Jefferson Avenue,  
DETROIT MICHIGAN.

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## The Farm.

### Drain Tiles.

There is a season for all things, and amongst the most important subjects which the agriculture of the State demands, there is none that should have more attention than the manufacture of drain tiles. The tiles themselves are not an article which will bear transportation a long distance, for the cost of carriage and handling will soon double or treble their first cost. Hence it is important to have them manufactured in close proximity to the neighborhood where they are to be used. In many of the lands of the State tiles are a necessity that have not yet been sufficiently appreciated, and therefore the demand for them is not enough to warrant their manufacture on a large scale. But it certainly is a fact well worthy the attention of those who should be willing to invest some capital in their manufacture, that when they once begin to furnish them, the demand will increase.

It is but a few years since John Daines of Birmingham, and Messrs. Harmon of Northville, commenced the manufacture, and though at first there was hardly a farmer who would purchase enough of the article to do more than drain a cellar, there were some who made drains upon low lands, and whose success in making good meadows out of the merest swamps and most unproductive lots on their farms, have been the means of turning attention to the utility of the tile drain, and a large demand for tiles has been the consequence. Last year Mr. Daines sold readily all the tile he could manufacture, and would have sold many more, but for the financial depression which existed in every community north of Detroit. These tiles have been found most efficient and lasting. Some two years ago we were on the farm of Mr. Pearsall of Troy, and he showed us then where he had some two years before laid down drains of tile for

the purpose of getting the water off a piece of his farm that was submerged by every fall of rain. The drain when we saw it, was not large enough to perform the work required, but there issued from its mouth a steady stream that evinced how well it could perform as far as its capacity would permit. At that time also we noted that a yellowish red sediment was discharged with the water from the drain, and which Mr. Pearsall at that time thought came from some of the tiles which had dissolved. We thought not, but that the sediment was an iron deposit that existed in the soil, and which filtered through the tiles with the water. We have learned that these tiles were taken up during the last summer for the purpose of enlarging and altering the drains, and every tile that had been put down was found perfect, doing its work as effectually as when first laid in the ditch opened to receive it.

There have been a large number of drain tile machines invented in England, and many of those now in use in the Eastern States are modifications of the English machines. There have also been several machines invented in the United States, but after examining them all, it will be found that there are none so simple, and at the same time so efficient, as the AMERICAN TILE MAKER, invented and manufactured by John Daines, of Birmingham, in this State. Its cheapness, as well as its simplicity, commend it to general use.

As there are brick making establishments in the vicinity of every village in the State, and every brick-maker should be able to manufacture tile and burn them as easily as he does his brick, we think it would be well in many localities to have farmers encourage the procurement of machines, and the manufacture of tiles, by entering into stipulations to take a certain number of rods the first year, so as to insure the maker against loss. It would be well also for county societies to offer premiums for examples of the best and most efficiently drained fields, the judgment to be rendered in some degree on the number of tiles laid down, and the skill exhibited in rendering the drains serviceable in performing the work required.

This is a species of improvement of the farm that should have much attention paid to it, and is well worthy the patronage of the county societies. The testimony of all who have tried the effects of draining with tile, and have done the work with a proper attention to carrying out the details in accordance with the rules which experience has taught the necessity of following, is in favor of the improvement as one which repays the outlay as promptly as any that can be made on the farm.

The season is now at hand when preparations should be made by those who would be likely to enter into the business of making the article for sale. Like brick making, the season is the dry weather of summer. Farmers themselves should take the initiative in the matter. Few farmers can spare the time, to superintend the management of a tile factory even on a small scale, during the summer, and we would not advise it if they could, but they can at little expenditure of time or capital, give all the encouragement requisite to their nearest brick maker or potter, and once the business is started, it will be found that it will go on alone whenever it is seen what effects are produced on the wet swales that have hitherto grown nothing but very poor crops of wild grasses.

### A Short Rotation.

"I cannot raise wheat to any advantage," said a friend a few weeks since, "oats are almost sure to lie down, the straw is so soft; Barley is out of the question on my stiff rather low, undrained land. What sort of a course of crops ought I to pursue?" There is stock enough on the farm, and it consists principally of four or five large lots into which the cleared land is subdivided. Last year a large field was in corn, the sod had been broke up the same spring. The rest of the land is already seeded. There are large quantities of manure to be hauled out, which can be used. It is necessary at the same time to be as economical of labor as possible in planning the crops for the future.

To cure such land of having the oats lie down from softness of straw, it is evident that it needs a strong dressing of lime. But this it cannot have the present year. The farm is well stocked, manure is plenty. Then go at work and haul out the manure on the field which grew the corn last year, plowing it about two inches deeper than it was plowed when the sod was broken up for the corn crop of last year, and plant that field with corn again; letting all the other fields which are now in grass remain so for the present. Leave an acre of the corn field for roots, which with the pumpkins and corn-stalks will make a change of diet for the stock, and will aid in preventing disease. An ounce of prevention is equal to a pound of cure. When the corn comes off, which it should do early, plow the land immediately to a moderate depth, say six to seven inches, and sow it with rye. But on this land which lies low, the plowing, which is to form the surface of a meadow or pasture for several years, should be done in the most careful manner. The lands should be laid out and finished in handsome rounded ridges, with each dead furrow straight as a bee line, and running with a fair clear descent to the nearest open ditch or water course. In fact it should have two plowings, the first should be to turn up the soil, and break up the corn hills, loosening the stubble, so that it can be gathered together with the drag or cultivator in heaps, and carried off or burnt. Then when the field is clean, put in the plow a second time and gather the field into lands or ridges, not over 20 feet in width and sow with rye, or if the grass crop is more important than grain, seed with timothy and red top, at the rate of not less than half a bushel of seed to the acre. This will want to be sown also with ten pounds of clover in the spring, and after the clover seed is sown, the roller should go over the field both ways. By this rotation on a farm of one hundred acres of cleared land, divided into five lots, we can have either a crop of corn, a crop of rye, and three years of grass from every field, or we can have two crops of corn, one manured with the fresh plowed sod, and the other the stable manure and three crops of grass; or we can dispense with one crop of corn or one crop of rye, as circumstances may point out, and follow the Indian corn that was grown on the sod, with the grass seed. At the same time using the manure solely to top dress the grass fields in their third and fourth years, and to plow in for the corn. With such a rotation followed up, with a farm properly stocked, we will guarantee a yield of 75 to 80 bushels of shelled corn to the acre, if properly taken care of. All these rotations are laid out with the understanding that the farm is to be conducted with the least amount of labor possible to be used, either in the shape of teams or men. One good pair of horses, and two smart men should do the work, except for a few days in hoeing and haying time. There would be no harvesting if no rye was grown. Such a rotation should send off an equivalent of two heavy sheep and one fat three year old steer from every five acres. We should on some accounts prefer the rye in the rotation, as the straw would be useful, and the grain ground and mixed with the ground corn, would be found more serviceable in ripening the fat animals than the corn alone. Besides, there should be the sales from the dairy, the wool, and the pork, all of which ought to count up as revenue from a 160 acre lot, 100 being clear, and provided with buildings and conveniences for the stock young and old. In a flat and rather low soil, much will depend on the having all the water courses clear, all the furrows laid out so that as little surface water will stand as possible. Hence every field laid down to grass should be treated so that the surface itself would promote the flow of water from it.

Mississippi is a new State; it dates its existence only from the year 1818; and notwithstanding all its fertility, a large part of the land is already exhausted; the State is full of old deserted fields.

Our agriculturists, as a whole, instead of seeking a higher cultivation, are extending their boundaries; and their education, on the contrary, is limited to the metres and bounds of their forefathers.

### Plaster for the Southern Counties.

We note with pleasure that John D. Campbell, Esq., the Superintendent of the Southern Michigan Railroad, has also initiated on the various lines of railroad, the system of a cheap tariff on the Grand Rapids plaster. This liberal policy will undoubtedly be amply repaid by the increased freights that will accrue on other articles, the production and carriage of which are the chief reliance of the Company for revenue. At the several most important stations on the Southern Railroad the Grand Rapids plaster will be furnished to any parties who will furnish their own sacks, in lots not less than ten tons, at the following rates

At Monroe the rate will be \$5.96, and where the sacks are lent and returned, \$6.21, or a difference per ton of 25 cents for the use of the sacks.

At Wyandotte, \$5.72 per ton, the sacks furnished by the person who buys; at Trenton \$5.76; at Toledo \$6.20.

At Blissfield \$6.53; at Deerfield \$6.17, and at Adrian at \$6.29.

At Tecumseh \$6.29; at Clinton \$6.39; at Manchester \$6.42, and at Napoleon \$6.53.

At Osseo, at \$6.57; at Hillsdale \$6.62; at Jonesville, \$6.67; Quincy, \$6.78; Coldwater, \$6.84; Burr Oak \$7.02; Sturgis \$7.10; White Pigeon \$7.20; Constantine \$7.25; Three Rivers \$7.32.

This is at the rate of one cent per ton per mile over the original cost at Grand Rapids, with the addition of the cost of the freight on the Detroit and Milwaukee Railroad from Grand Rapids to Detroit. These terms for this quality of plaster is therefore as cheap as it can be rendered.

Plaster it must be recollected will not supply the place of manure, nor will it supply the place of the work incident to the farm, but when both these elements are present it comes in as third one, and renders them useful. Most of our farmers have an idea that they have only to dust with plaster and clover will grow almost alone. On the light friable soils which prevail on the opening lands that lie along the Southern road, their top dressing with plaster has a most wonderful effect in developing the growth of clover. And that growth of clover, even by the mechanical division of the soil, which its rank penetrating roots effects, has almost as much of an influence on the succeeding crop, as a thorough plowing. But when this thorough plowing, and the rank clover crop is continued, we a ways find the best results. It is to be hoped, therefore, that whilst the plaster is afforded at the very lowest rates, that our farmers will not neglect the labor necessary to obtain its full benefits, and some return for their outlay in its purchase.

### How to Treat Sink Holes.

EDITOR FARMER:—There are many farms in this State on which there are little pond holes, or sinks where the water stands from three to six months of the year, that are a real nuisance; only fit for frogs, or to breed muskrats and disease,—many of which may be converted to much better use in the following manner—that is, if they are such as several that were on my farm: I first ascertain how deep the water lies in the bottom of the pond hole in the driest time in the year; then construct an underdrain, so as to drain the pond down to living water. Then sink a pit, or vat, four by eight feet, two feet deep, below the top of the living water, or below the drain, so that the water would be two feet deep in this vat when all was drained off that would. This should be planked up with plank 2½ inches thick, to the top of the water, then covered with narrow pieces of plank, leaving spaces between about four inches, or just so as to admit cattle to drink between them, and nothing could fall in of much size. Now the box is made, dig out from the top of this box, on a slant of about twelve degrees, to the top of the ground on the side we want the cattle to approach; then pave with cobble stones to make it solid, and plank the other sides to the top of the ground, and we have a good watering place, that is really a prize and occupies but little

space; and more, the land all around it is fit to plow in the spring as early as our highest lands without the drains. I know what I say, for I have several such watering places on my farm that work admirably, where I once thought they were, and would remain, perfect eye-sores.

WILLIAM BEAL.

Rollin, 2d month, 1859.

### Working Land for Potatoes.

Those who are about to plant potatoes, should now make preparations as to the ground on which they are to be set, and have it plowed at an early day thoroughly. One of the best qualities of land for the growth of the potato, is a sod which has been used to grow corn last year. But once plowing of this land will not fit it for the growth of the potato, whether it be a stiff or light soil. The first plowing should at least be to the depth of eight inches, and ten would be better; but that plowing to the depth of ten inches would be putting the plow to a depth so much below what has usually been the practice, that it would be apt to bring up more of the raw material than would be advisable. On clay this might not be advisable; on the light opening soils, or on the plains it would do no hurt to the crop. Where the gang plow is on hand, we would recommend that implement for the second plowing; it will turn over and pulverize the soil to the depth of six inches, rapidly and well, and it will work three or four acres per day. It is better for this work than the wheel cultivator. Where neither gang plow nor cultivator is on hand, go through the lot with the plow a second time, and follow with the harrow, or drag, till it is certain that the surface is as mellow as an "ash heap." It is work like this that repays in the potato crop.

It is more profitable, in my opinion, to expend the labor thus in securing a good crop of between two and three hundred bushels from one acre, than to plow two or three acres once, and secure not over 80 or 100 bushels from each acre, and it has only to be borne in mind that the economy of half working three acres is only seeming; for when the cost of seed, the expenditure of labor of horse and men in plowing, cultivating and hoeing, and of gathering and harvesting in the fall, on the three acres, are compared with what is necessary on the one acre, it will be noted that the half done work on the three acres will be the most expensive.

It is at this time also important to have the potatoes ripen early, and as the season is at hand when potatoes should be got ready for planting, a little extra labor may well be given to that subject. I would not plant whole potatoes, nor small ones, but would prefer good sized tubers, and then cut them in two, separating the seed end half, and lay them in a heap by themselves, and the remainder of the potato in another heap. The seed end, I would cut again, or divide, as the size or number of eyes might dictate, and when the potato was cut, the seed thus prepared should be rolled in lime. The lime heals the wound, or cauterizes the surface, and thus preserves the sap and substance of the tuber for the use of the young sprout, before it has got strength enough to send out roots and obtain nourishment from the soil. All the seed of the potato which are procured from the seed end of the tubers, should be set in a division of the field by themselves, and the remaining seed in another division. The one will be ready to work with the plow or the cultivator at least a week or ten days before the other, and will likewise ripen much earlier. It has long been a question with me, Mr. Editor, whether nature herself does not point out, by the formation of the potato, which has all its propagating forces crowded to one particular end of the tuber, that only that portion should be used. If the tuber itself is, as claimed by the botanist, only an underground development, similar in its nature to the branches or shoots above ground, then it may be asked why we should not look to that portion most distant from the stem or main root, as that which would naturally give the best returns, as being that which was intended by the nature of the plant itself to propagate the species.

RUSTICUS.

—Governor Banks recently stated that the shoe trade of Massachusetts amounted to fifty millions of dollars annually.



### Do Domestic Animals consume Food according to Weight of Carcass?

MR. EDITOR:—The statement has often been made in the affirmative, and of late a writer in the FARMER, over the signature of "T.," has taken the same position.

Now it seems to me that some allowance should here be made for age, previous keeping, warmth of shelter, &c. All these have an influence on the amount of food consumed. Every observing farmer has learned that a cow ten years old consumes more food than one three or four, although their weight may be equal. A colt whose weight is 1,000 lbs., at the age of four years, lives on less food than the brood mare of equal weight, whose age is ten or twelve. And again, some animals have an eager appetite—they are never satisfied. These are distinguished by great dimensions of stomach. Animals that have been kept on a short allowance for a length of time, require weeks, and sometimes months, to replenish their exhausted systems, to build up the shrunken tissues—during which time they devour enormous quantities of food.—If it is a fact that animals use food in proportion to weight, where is the utility of our boasted improvement in stock? If a long-eared, long-nosed, long-legged land-shark, eats no more in proportion, why then pay high prices for Essex, Suffolk, Berkshire, or any other improved family? If a porker gives you back so many bushels of corn; or, in other words, devours in proportion to his weight, then away with all improvement in this direction. If a coarse, ill-shaped, "cat hamed," native ox gives as much beef for his keeping as a Devon, or Durham, then why purchase these at such enormous prices, where raising beef is the great object in view?

As with animals so with men; the writer is acquainted with one whose weight is 300 pounds, and yet his daily rations are less than ordinary men of 130. Has not almost every reader of the FARMER known such, or similar cases.

Long since I learned the fact that it cost more to winter a September or October pig, than a yearling hog; and it matters not if the shot weighs but 40 pounds, and the yearling 400. It takes nearly all the food such a pig gets to keep up the animal temperature, consequently there is very little or no growth; and yet farmers continue to keep such useless brats, which could not be sold in the spring for near the cost of wintering.

No man can winter a late pig without losing money, unless it is a *fancy* breed, or he can realize a *fancy* price for it.

But I have an illustration. A friend gave me a Suffolk pig last November (you know I could not well refuse a gift of this kind); having a breeding sow half Suffolk, one year old last April, curiosity prompted me to feed the two separate, and allow each the same amount of food. The shot weighs about forty pounds, and has gained about ten lbs. in three months, but has not increased in fat, so far as can be perceived. The sow, by good judges, is estimated at 275 to 300 pounds; has increased in flesh until she is quite fat pork, rather too fat for breeding purposes.—The quantity given is two good-sized ears of dent corn, twice each day, or their equivalent. If the ears are small they are divided so as to come as near that amount as possible.—Here we come back to our starting point: Do animals consume food according to weight of carcass? R. RANDALL.

Clinton, Feb. 17th, 1859.

### Michigan Horse Breeding.

MR. EDITOR:—You are doubtless aware of the pains which have been taken within the last few years to improve the stock of horses in this State by the purchase of animals of superior breeding, and their introduction into our borders. No one has encouraged the movement more wisely or zealously than yourself, by opening your columns to free discussion by others, and giving that attention to it from your own well stored mind which its importance required. You have been well aware too of the disastrous losses and consequent discouragement suffered by many engaged in the enterprise. The trotting stallion Jackson was the first horse of his kind brought to the State of late years—within the period of your particular identification with the agricultural interests of the State, although as an individual, Jackson was not remarkable in any respect, yet the pedigree claimed for him was a good one, from a cross with which our stock should have improved. He died suddenly after a couple years or so of service, leaving from thirty to fifty colts it is supposed, and many of them from superior dams, who have yet to give proof of any more than common excellence.

The next horse brought here was Abdallah Chief—a very superior animal of the most

approved descent from Messenger through a line of ancestry distinguished on both sides as enduring roadsters and sharp trotters.—The sum of \$2,000 was paid for him, and after a few months he was killed, leaving eight colts in the State. Then came Columbus, perhaps the best horse ever brought here of his class of stock, at a cost of \$3,000 to his owner, one of the purchasers of Abdallah Chief. He too died of too violent doctoring after a few months, leaving also eight colts. It is a somewhat singular coincidence in the history of this enterprise, that both Abdallah Chief and Columbus should have died on the same day of the same month of the first spring succeeding their importation into this State, and that each should have left the same number of colts among us, namely eight. Those left by Columbus are yet too young to give other proof of the promise that is in them than that afforded by their structure and evident spirit.

But it is a remarkable fact that of Abdallah's eight colts, there is but one *filly*, and that every one of his get gives every indication of superiority in breeding and performance. At the last State Fair five of his colts, embracing two two-year-olds and three yearlings, were exhibited for competition, although one of the two-year-olds by some inattention on the part of his groom, was not brought into the ring for examination. And mark the result; three out of the five received first premiums. That is to say, the two year old actually examined, Capax Abdallah, received the first in his class. The yearlings were all in the same class and of course but two of them could obtain awards. Forerunner Abdallah receiving the second, and Abdallah, Jr. the first. In addition to this, Roebuck Abdallah who received a first discretionary premium last year as a two year old trotter at our State Fair, and who was exhibited but not entered for competition at this year's Fair, also received a special notice and commendation from the committee on his class, trotting stock. Truly, Mr. Editor, if the gentlemen who have lost so much by the importation of these valuable animals, can derive any satisfaction from the knowledge that their good judgment is being confirmed, those extraordinary facts must go far to soothe their disappointment. Let me ask, what other stock of any one horse among the hundreds exhibited yearly at our Fairs, has shown such a proportion of premiums? Only look at it. Three out of five competing, taking premiums, and only eight (the whole number of Abdallah colts,) to select from in the State. Let these facts, we say, while they must make a vivid impression on the minds of all, encourage the owners of this really very superior stock, to bide their time patiently, and discredit me for a poor prophet, if they do not before many years reap a rich reward for their public spirit in the value of the Abdallah element in the horse stock of Michigan and the North-West. MACOMB.

Roseville, Mich., October 13, 1858.

### Bringing Sheep out of Winter.

S. Lahm of Canton, Ohio, in the *Cultivator*, gives the following as his method of treating his sheep at this season. If any of our sheep breeders have a better way, we hope they will let us hear from them:

"About the first of March, we carefully examine our flocks. If there are any sheep that are losing flesh or strength, they are taken from that division of the flock in which they have been, and put with some other division in which they will be better fed, so that they will begin to recover what they have lost. A sheep that is weak on the first of March, must be attended to, or all that will be left of it on the first of May will be the pelt. It is very important now that we should give to our flock a little grain, especially our one and two year olds, and our breeding ewes, and a good supply of well cured clover hay. A half bushel of oats, or corn cob meal—that is, corn ground with the cob, in the morning and evening, or even only once a day, to each hundred, will be of great benefit to young sheep. And a bushel of oats per day to each hundred ewes, will be a good investment.

We manage to have our lambs come from the 20 of April to the middle of May—most in the latter part of April—and to the end that the ewes may be strong, and have an abundance of milk, we commence to feed a little oats and bran in March, and continue till they get a sufficiency of grass. A ewe in good condition and with a good flow of milk, seldom gives the shepherd any trouble, but the reverse with the sheep, and the reverse with the trouble. More than this, a lamb raised by a half-fed ewe, is not worth any thing when raised. Nothing so provoking as to have a ewe drop her lamb, and walk away from it as though it did not belong to her.—

This they are apt to do if they have not sufficient nourishment, and especially young ewes. Such as do this we put into small pens, hold them occasionally for the lambs to feed, until the ewe will own her offspring and let it suck, but it is generally as much trouble as the lamb well ever be worth. The great preventive for this, is good management and good feed before the lambs come. Ewes should not be fat, but in good stock condition; and for several weeks before the lambs come, the ewe should be fed with a view to having a sufficient quantity of milk for the lamb.—Nothing better for this purpose than oats and wheat bran, with good hay or corn fodder.

Up to this time we have fed no grain. Would feed some now, if we had it to feed; but with our management, as given in my last, our sheep are doing well, and have lost but two. But few persons, in my opinion, know the importance of constantly supplying sheep with a sufficient quantity of clean straw to pick at, between regular feeding times. We always feed straw in the racks, in order that no chaff may get into the wool on the neck and shoulders, as it will, if suffered to run to straw in the stack. One more suggestion, which I frequently impress upon my shepherds; it is this: When the sheep are let from the outer yard into the stable to feed, he shall always wait and look on long enough to see whether every one of the flock takes hold of the feed as though they were in good health, and felt right. No better time to discover the beginning of trouble, than when the sheep manifests a want of disposition to eat.

### Influence of Water on Climate.

Philosophical experiments have proved that water evaporates under all temperatures,—even ice throws off vapor to a small extent. But the greater the heat to which water is exposed, the greater will be the quantity evaporated from a given surface. The vapor ascends into the atmosphere because it is lighter than an equal measure of air, and carries with it all the heat it absorbs from other bodies with which it comes in contact. Vaporization consequently warms the air while it cools bodies on the earth's surface. Water also possesses the property of throwing off a vast quantity of heat in the act of freezing, which also warms the atmosphere in proportion to the quantity eliminated, and this depends on the suddenness and intensity of the frost and the quantity of ice formed.

In mountainous and hilly countries, such as the interior of Pennsylvania, where no marshes or lakes exist, and where the surplus water is conveyed off nearly as fast as it falls, cold weather comes on gradually when winter arrives, and continues steady for weeks, one day like another; the sun bleaching through a cloudless, hazy sky, attended with severe frost, that covers the rivers with ice strong enough to bear any weight that can be transported across. These natural bridges, of which we have few in Michigan, are generally completed before the first of January and last nearly three months. But in marsh and lake countries of the west, a severe frost always throws off a quantity of heat sufficient to bring on a thaw that breaks up the ice and extracts the frost out of the ground in the winter several times.

But there is still another peculiar property of water, which distinguishes it from all other substances; namely: it has its greatest density (weight in a given measure) at the temperature of thirty-nine and six tenths degrees, and expands, and consequently becomes lighter, both with an increase and with a diminution of its temperature, though it does not freeze till the temperature is reduced to thirty-two degrees.

Now, as in spring the water of deep lakes is first warmed on the surface, and consequently expands and becomes lighter than an equal measure of water below this, it will obviously remain on the surface so long as the incumbent atmosphere remains warmer than the deep and cooler water; for there is no cause to sink the former and raise the latter. But, when winter approaches and the atmosphere becomes colder than the deep water, it gradually cools the surface water, till it becomes denser than that below, and consequently heavier, and therefore sinks, while that below rises to be cooled in its turn. And this mutual interchange of colder with warmer water continues till all the water in the lake is reduced to the temperature of 39° 6', when the interchange ceases, because both the temperature and density of all the water in the lake have then become equal, and the cause of motion has consequently vanished. If the temperature of the incumbent atmosphere continue to increase, and reduces the water then on the surface to a still lower temperature, this then remains on the surface because it expands and becomes lighter again

than the water below it, and is very soon reduced to 32°, when it is transformed into a coat of ice. But, in the act of congelation a great amount of heat is liberated, as stated above, which not only warms the air above but also the water below it; and, as ice is a very bad conductor of heat, the water below it continues warmer than the ice itself, all winter.

From these scientific facts it is manifest that large and deep lakes, such as surround our State, must have a material influence in moderating the climate in their immediate vicinity, for even the bays connected with them seldom freeze over before February, and then throw off heat enough to keep the air warm for sometime; and it is evident that so long as the water is warmer than the air, the former must warm the latter. How far this influence extends inland, I have no means of ascertaining: nor can I assign a reason why it is so much greater on the east than on the west side of Lake Michigan, unless it be attributable to the general prevalence of the wind from west to east.

No employment can give greater pleasure to generous minds, than the contemplation of the Creator's wisdom, displayed in the adaptation of things to each other. So profound is the plan of creation, that with every new discovery in science, new and still more astonishing wisdom appears in this adaptation, that goes to prove that mortals never will be able to fathom it. But only a few items relating to water can here be indicated.

Water is composed of two gases, i. e. eight parts of oxygen to one part of hydrogen; and, if these two gases be mixed in this proportion and a spark of electricity be passed through the mixture, they combine chemically and evolve the most intense heat man can produce, the product being pure water, and yet water is the best antidote against combustion.

Water, as is well known, exists in three conditions, viz: as a liquid indispensable to the existence of sentient beings and vegetables; in the form of vapor or steam; and of ice or snow. If it were not subject to evaporation there could be no rain, dew, snow, nor hail; and all such things as are now separated from it by evaporation, such as sugar, salt, potash, etc., could not be obtained.—Growing vegetables could not absorb it any more than they can fixed oil, nor be preserved for food by drying. It would not quench thirst, for we could not perspire. In fact, organized beings could not exist. If the greatest density of water had been fixed at the freezing point (32°) instead of at 39° 6', ice would have been formed at the bottom of lakes and rivers; and, in our northern latitude, all reservoirs would have become solid ice during winter, which the longest summer could never have thawed out; and all aquatic beings would have perished. If water had not been subjected to congelation, or had not been made a bad conductor of heat, ice could either not have been formed to preserve the temperature of the water below it above the freezing point, or if formed, it would have conducted the heat away into the atmosphere; and in either case its temperature would have been reduced to the freezing point, and all water, in this latitude, would have been transformed into ice. If it had not been made to throw off a large quantity of heat during the act of congelation, the water under the ice would have been cooled to the freezing point much deeper than it is now, the ice would have become much thicker, and the summer so much shorter that our vegetables could not have arrived at maturity. H. R. SCHETTERLY.

### FARM MISCELLANEA.

#### Starch—Sugar—Potato.

The embryo of plants receives their nourishment from the sugar contained in the seed. This article is found in the seeds of all plants, or rather exists in them in the form of starch, and is converted into sugar by the process of germination, and serves for the nourishment of the young plant.

Starch and sugar are composed of the same elements and in nearly the same proportion, starch having an additional quantity of carbon. By the application of heat and moisture by which oxygen is absorbed, some of this element of starch is evolved, and it becomes sugar. This is the process in germination, and in the malting of barley. The skin or lower part of flowers, also contains starch, which is changed into sugar for the nourishment of the seeds.

Starch is very abundant in the potato; the tubers of this plant being in large part composed of it. The practice of nipping off the flower buds of potatoes has been frequently adopted by gardeners, which they considered had a tendency to increase the product. The effect of this practice is to check the demand of the growing flower for starch, and by thus preventing the exhaustion of the store of starch

ingredient, it will be accumulated in other parts, and principally deposited in the tuber, the growth of which will be increased proportionally.

The amount of starch increases regularly with the growth of the plant, and is in greatest abundance at its maturity. It remains about the same till the period when the seeds are beginning to germinate, or the young parts of the plant to grow, and is then converted into sugar. It has been found that 100 parts of potatoes contained in August, 10 lbs.; September, 14½ lbs.; November, 17 lbs.; March, 17 lbs.; April, 13½ lbs.; May, 10 lbs.

From November to March, inclusive, the starch remains unchanged, and as it is the germination or change into sugar, by keeping in a moist place, that renders seeds unfit for planting, it would seem that the most proper time for spring planting of potatoes should be early in April. As at the time of sprouting of the tubers the starch becomes changed into sugar, it may be supposed that at that time of the year, that is, in May, they might be profitably used for the manufacture of sugar. We know not that any experiments have been made for that purpose.—N. E. Farmer.

#### Oats Wanted.

The *Ohio Cultivator* states that the failure of the oat crop in that state will compel many farmers to depend upon other States for seed, and says "that as the crop in Canada was comparatively good, seed will be brought from there." Friend Harris is in error when he claims the oat crop of Canada to be good. It is generally understood that the Canadians will themselves have to import seed this season, so very light was the crop in that province last year.

#### Sensible talk about Potatoes.

We occasionally come across a potato grower who has something sensible to say on the potato, and who does not go off on a tangent speculation on whether one or two eyes should be put in a hill, or whether a potato skin or a whole tuber ought to be planted. Those who speculate in that way, generally contrive not to give half labor enough to the potato crop. Now here is a writer with whom we agree, and who hits the very greatest defect in the cultivation of the crop.

G. B. Miller of Jeffersonville Ind. writes to the *Ohio Farmer* "The production of this plant has, in the greater majority of cases, failed almost entirely. The great secret, however, is because it is not managed right; the soil has not been properly cultivated before planting, and has not received that faithful and necessary attention that it should. I have been connected with that line of business for the last fifteen years, and have succeeded, I think, in discovering the best mode of growing this most valuable plant.

An acre of good soil, when properly tilled, ought not to produce less than two hundred and forty bushels. Having the ground in proper order when they are to be planted, is an item not to be overlooked by those who wish to succeed well. It should be plowed twice before planting, the first time about the middle of April, and then lie until about ready to plant, when it should be re-plowed very deep. The potatoes should not be planted until about the tenth or fifteenth of May, when the freezing blasts of winter will not interrupt their growth. Before planting, the re-plowed ground should be thoroughly harrowed three or four times, until it is perfectly mellow.

#### American Stock for England.

By the steamer City of Manchester, which left New York for Liverpool on Thursday the 3d instant, *Potter's Spirit* informs us that no less than three consignments of thorough bred stock were taken to England, as follows:—

"The first of these lots consists of two high-mettled racers and a trotter, bought by Mr. Ten Broeck, to replenish his American string on the other side of the side of Atlantic; the second consists of three thorough-breds of equally proud and noble lineage, purchased and taken out by Mr. Robert Harlan of Cincinnati, backed by a trotter, thrown in by Sam M' Loughlin; and the third consists of a large lot of American game fowls, of the purest and most famous strains, which are sent to our London correspondent "Censor," to be crossed under his eye with the best breeds known in Britain, and to make English farm-yards jocular with their notes. The thorough-breds taken out by Mr. Ten Broeck are: ch. c. Starke, 4 yrs., by Wagner, out of Reel, and ch. c. by Lexington, 2 yrs., dam by Glencoe. Both of these are fine animals. The qualities of Starke have been well tested, and the price, given for him by Mr. Ten Broeck (\$7,500) shows his present and past owner's estimation of his worth. As for the Lexington colt, he is as fine a two-year-old as we have seen for many a day.

The string of Mr. Harlan consists of Des Chiles, a three-year-old filly, by Glencoe, out of Brown Kitty, by imp. Birmingham; Cincinnati, a two-year-old, by Star Davis (he by Glencoe), out of Theatress, by Muckle John, out of old Lady Jackson; and Lincoln, 4 yrs. by imp. Belshazzar, dam by imp. Jordan. These three are also exceedingly fine animals, and the very fact of their being selected by so experienced a race-man as Mr. Harlan, is a guarantee that they are considerably over average in their points and promise.



## The Garden & Orchard.

### American Pomological Society.

The official account of the doings of this association at New York, last September, is just published; making a portly and interesting pamphlet of 264 pages. It contains the address of the President, Hon. M. P. Wilder, delivered at the opening of the season; a list of the officers and committees for the next two years, and a report of the essential portions of the discussions of the various matters brought before the Society, filling fifty-five pages. After which, ninety-eight pages are taken up by reports from ten States and the District of Columbia, which were handed in, and ordered printed without reading, as the Society had no time to give them consideration. Then follows a carefully prepared article, by L. E. Berckmans, on Fruit Growing, in a general point of view; another by T. W. Field, on The adaptation of varieties of Pears to soils and localities; also a letter from J. J. Thomas, on Fruit Culture, and an interesting article, by D. Redmond, of Georgia, on The Pomological Resources of the South.

Then follows the report of the committee on the Rejected List, by which that list is swelled to a very respectable, and I may add, desirable length; embracing, of apples, one hundred and twenty-six varieties; of pears, one hundred and ninety-seven varieties; of apricots, five; of cherries, thirty-two; of grapes, two; of plums, thirty-one; of raspberries, three; and of strawberries, seventy-five varieties.

The following is the list of varieties recommended for general cultivation:

**APPLES.**  
Am. Summer Pearmain, Melon,  
Autumn Bough, Minister,  
Baldwin, Mounmouth Pippin,  
Benoni, Porter,  
Bullock's Pippin, Primrose,  
Caroline June, Rambo,  
Dorset's Winter Sweet, Red Astrachan,  
Early Harvest, Rhode Island Greening,  
Early Strawberry, Roxbury Russet,  
Fall Pippin, Smith's Cider,  
Fameuse, Summer Rose,  
Gravenstein, Swaar,  
Hawley, Vandervere,  
High Top Sweeting, Wagener,  
Hubbardston Nonsuch, William's Favorite, (except  
for light soils),  
Jonathan, Winter Apple, or Hays,  
Lady Apple, Winesap,  
Ladies' Sweet,  
Large Yellow Bough.

**PEARS.**  
Ananas d'Ete, Fulton,  
Andrews, Golden Bourne of Bilboa,  
Bartlett, Kingessing,  
Belle Lucrative, Howell,  
Bourne d'Anjou, Lawrence,  
Bourne d'Ardenberg, Louise Bonne de Jersey,  
Bourne Dial, Madeline,  
Bourne Rose, Manning's Elizabeth,  
Bourne St. Nicholas, Onondaga,  
Bourne Clairgeau, Osband's Summer,  
Bourne Gifford, Paradise d'Automne,  
Bourne Superfine, Rostetzer,  
Brandywine, Seckel,  
Bloodgood, Sheldon,  
Buffum, St. Michael Archange,  
Coburn, Tyson,  
Cordoba's Seedling, Urbaniste,  
Doyenne d'Ete, Vicar of Winkfield,  
Doyenne Rousseau, Winter Nellis,  
Doyenne d'Alencon, Uvedale's St. Germain, (for  
baking),  
Flemish Beauty.  
The varieties recommended for cultivation on quince  
stocks are omitted, having been given in a previous  
article.

**PLUMS.**  
Bleeker's Gage, Purple Favorite,  
Coe's Golden Drop, Prince's Yellow Gage,  
Green Gage, Purple Gage,  
Jefferson, Reine Claude de Bayay,  
Lawrence's Favorite, Smith's Orleans,  
Lombard, Washington,  
Munroe, McLaughlin.

**CHERRIES.**  
Belle d'Orleans, Governor Wood,  
Belle Magnifique, Elton,  
Black Eagle, Early Richmond (cooking),  
Black Tartarian, Gradion, or Bigarreau,  
Coe's Transparent, Knight's Early Black,  
Downer's Late, May Duke,  
Early Purple Guigne, Reine Hortense.

**APRICOTS.**  
Breda, Large Early, Moorpark.  
**NECTARINES.**  
Downton, Early Violet, Elruge.

**PEACHES.**  
Bergon's Yellow, Early York, large,  
Crawford's Early, Hill's Chilli,  
Coolidge's Favorite, Large White Cling,  
Crawford's Late, Madeleine de Courson,  
Early York, serrated, Teton de Venus,  
George IV, Oldmixon Tree,  
Grosse Mignonne, Oldmixon Cling,  
Morris White, Zinfandel.

**GRAPES, UNDER GLASS.**  
Black Damascus, Red Chasselas,  
Black Hamburg, White Frontignan,  
Black Frontignan, White Muscat of Alexandria,  
Black Prince, White Nile,  
Chasselas de Fontainebleau, West's St. Peter,  
Cannon Hall Muscat, Zinfandel.  
Grizzly Frontignan.

**GRAPES, OPEN CULTURE.**  
Catawba, Diana,  
Concord, Isabella,  
Delaware.

**RASPBERRIES.**  
Festoff, Orange,  
Franconia, Red Antwerp,  
French, Yellow Antwerp,  
Koevet's Giant.

**STRAWBERRIES.**  
Boston Pine, Large Early Scarlet,  
Hovey's Seedling, Hooker's Seedling,  
Burr's New Pine, Wilson's Seedling,  
Longworth's Prolific.

**CURRENTS.**  
Black Naples, White Dutch,  
May's Victoria, White Grape,  
Red Dutch.

**GOOSEBERRIES.**  
Crown Bob, Iron Monger,  
Early Sulphur, Laurel,  
Green Gage, Rod Champagne,  
Green Walnut, Warrington,  
Houghton's Seedling, Woodward's Whiteswith.

**BLACKBERRIES.**  
Lawton's New Rochelle, Dorchester Blackberry,  
**NEW VARIETIES WHICH PROMISE WELL.**

**APPLES.**  
Broadwell, Mother,  
Buckingham, Smokehouse,  
Cogswell, White Winter Pearmain,  
Fornwalder, Winter Sweet Paradise,  
Genesee Chief, Wintrop Greening, or Lin-  
coln Pippin,  
Jedries,  
King of Tompkins County.

**PEARS.**  
Adams, Duchesse de Berri d'Ete,  
Alpha, Emile d'Huyot,  
Bergen, Fondante de Comin,  
Bourne d'Albert, Fondante de Chamuse,  
Bourne d'Alber, Fondante de Malines,  
Bourne d'Alber, Fondante de Noel,  
Bourne Hardy, Henkel,  
Bourne Kennes, Hoesenschen,  
Bourne Langelier, Hall,  
Bourne Nantais, Jalouse de Fontnoy Vende,  
Bourne Nantais, Kirtland,  
Bourne Nantais, Lodge, (of Penn.),  
Bourne Nantais, Niles,  
Bourne Nantais, Oit,  
Bourne Nantais, Philadelphia,  
Bourne Nantais, Pinneo,  
Bourne Nantais, Plus IX,  
Bourne Nantais, Pratt,  
Bourne Nantais, Van Assene or Van Assche,  
Bourne Nantais, Walker,  
Bourne Nantais, Zepherine Gregoire.

**PEACHES.**  
Teton de Venus, Madeleine de Courson,  
Georges, Susquehanna,  
Hill's Chilli.

**PLUMS.**  
Bradshaw, Munroe,  
Duchess's Purple, Pond's Seedling,  
Fellenberg, River's Favorite,  
General Hand, St. Martin's Quetsche,  
German Prun, White Damson,  
Ives' Washington Seedling.

**CHERRIES.**  
American Amber, Rockport Bigarreau,  
Bigarreau Monstre de Hovey,  
Mezel, Kirtland's Mary,  
Black Hawk, Ohio Beauty,  
Great Bigarreau of Downing, Walsh's Seedling.

**GRAPES.**  
Herbemont, Rebecca,  
Logan, Union Village.

**RASPBERRIES.**  
Cape, Thunderer,  
Catawba, Walker.

**STRAWBERRIES.**  
Genesee, Scarlet Magenta,  
Le Baron, Trollop's Victoria,  
McAvoy's Superior, Walker's Seedling.

**CURRENTS.**  
Versallaise, Fertile de Pallua,  
Cherry.

**FOR PARTICULAR LOCALITIES.**  
**APPLES.**  
Esopus Spitzenburg, Red Canada,  
Newton Pippin, Yellow Bellflower,  
Northern Spy.

**PEARS.**  
Gray Doyenne, White Doyenne.

**PEACHES.**  
China Cling, Carpenter's White,  
Heath Cling.

**PLUMS.**  
Imperial Gage.

**STRAWBERRIES.**  
Jenny's Seedling, Burr's New Pine.

**FOR NORTHERN LOCALITIES.**  
**APPLES.**  
Ribston Pippin.

**FOR GARDENS.**  
**APPLES.**  
Garden Royal.

**FOR SPECIAL CULTIVATION.**  
**CHERRIES.**  
Napoleon Bigarreau.

There are, obviously, some errors in these lists, as it will be observed that, occasionally, the same variety appears on two distinct lists. This, probably, arises from neglecting to strike out, in transferring from one list to another.

T. T. LYON.  
Plymouth, Feb. 26th, 1889.

### HORTICULTURAL NOTES.

#### Gas Tar for the Peach Borer.

A correspondent of the *American Farmer* writes that he has found gas tar a preventative of the ravages of the peach borer. He had previously tried lime, ashes, soot, sulphur, tobacco stalks, and almost every remedy recommended, finally knowing that the borer deposits its egg at various times from June to October, in the bark of the tree near the surface of the ground, he cleared away the earth from the body and roots of the tree to the depth of a few inches, and as soon as the bark was dried sufficiently, it was rubbed with a corn cob until it was smooth. The gas tar was then applied with a paint brush as low down as the excavation would allow, and for some three or four inches above the surface of the ground. The earth was filled into the holes again, and it was found the next season that the trees were perfectly healthy and uninjured by the worm or tar. Four trees were thus treated in 1885. In 1886 all the peach, apricot and plum trees planted, and of these the borer was only found in two peach trees in 1888. Gas tar is naturally very drying, and should be applied with caution. In this case it seemed to have been efficient, and not to have been injurious. Still we think in the case of young trees especially, a safe operation would be, after digging the earth from the stem to place a ring of strong brown paper around the tree and smear it with the tar.

#### The Honolulu Squash.

J. M. Briggs, of Madison, Centre, N. Y., writes to the *Ohio Farmer*, sending him a piece of dried Honolulu Squash, as a piece of vegetable confectionery, far superior to anything yet known, and better than Hubbard. He says:

"This new variety promises much; it is far sweeter than any other with which the writer is acquainted, and we have seen 'some pumpkins.' It is a very convenient size averaging about twenty pounds, russet skin, deep flesh, of a beautiful orange color and fine texture, and so very sugary as scarcely to betray its connection with the squash family when made into sauce or pie."

#### Annals that may be Sown Early.

T. Meham of the *Gardener's Monthly*, writing for Philadelphia latitude and climate, says: "Of annals that may be sown in March, there are some that are so very beautiful, and which do so well that they at least should be grown. These are a few of them: *Cassia coccinea*, *Coreopsis Drummondii*, *Erysimum Peroffskianum*, *Escholtzia Californica*, *Malope grandiflora*, *Marvel of Perdit*, *Nemophila insignis*, *Phlox Drummondii*, *Mignonette*, *Whitavia grandiflora*, *Clarika Pulchella*, *Gallardia picta*, *Palafoxa texana*, *Linum grandiflorum*, *rubrum*, *Lobelia gracilis*, *White and Purple Candy Tuft* and *Phacelia congesta*." Now for March we must say here the latter part of April or beginning of May at least.

#### Examine all your Fruit Trees.

In planting apple or peach trees, procured from the nurseries, examine them carefully for the worm, before putting them in the ground, and take the rascol out, as it is not much use to plant trees that have already got the enemy within the outposts of the bark.

**Raspberries and Blackberries.**  
As soon as the ground is dry enough to permit the spade to work freely, set out the raspberries and Lawton Blackberries you mean to cultivate permanently, and when set out don't for a moment have any expectation that the plants will produce this year. On the contrary, to make sure that they will establish themselves strongly, and bear well next year cut the canes short off a few inches above the ground, immediately after they are set out.

#### Manetti Rose Stock.

John Saul of Washington, proclaims the Manetti Rose as the prince of rose stocks, and in the *Gardener's Monthly* explains how roses may be grown on this stock easily and without the annoyance of suckers coming up daily and weekly. This process consists in first striking the cuttings of the Manetti, and then when rooted, and budded, stripping off all the roots which have sprung from the side of the cutting, leaving only those that have sprung from the lowest extremity. These roots are covered only, the remainder of the cutting is left above the surface, and forms the stem of the rose which may be budded upon it.

#### Vines from Eyes.

I have been experimenting with all the different modes of propagating vines from eyes, and find the following the most successful. Take good strong, hard and well-ripened shoots of last year's growth. Cut them with a sharp knife from a quarter to half an inch above a bud, and from an inch to an inch and a half below one, according to the size or strength of the shoot. Place them in an upright or vertical position in sandy rich soil, and barely cover the upper part of the cutting. I have found cuttings formed and planted in this way to root with more certainty and celerity than in the old way of planting them in a horizontal position with as much of wood left above the bud as below it. All the wood left above the bud is a disadvantage, being liable to canker and rot. Some persons cut a notch immediately opposite to the eye, supposing that it expedites the rooting, but I have found no advantage from it, but rather the contrary.—J. H. Buffalo, in *Gardener's Monthly*.

#### Starting Seeds Early.

The Rev. Daniel Emerson, Summit county, Ohio, writes that he has been successful in giving garden seeds an early start, in the following manner:

Having selected the quantity needed, each sort is tied by itself in a cloth, the name being plainly written on a slip of paper and inclosed with the seed. The packages are then buried about two inches deep in the ground for a week or two.—When ready to plant, the kinds needed for planting are taken from the bags and used. They will be found to have swelled, perhaps sprouted, and ready to grow. If the ground should be quite dry, it is best to water the drills after dropping the seed, and then cover with dry earth. Mr. E. says that by this plan he has never failed to raise plants from every seed planted, though when put out they were often sprouted. If each seed is placed where it is wanted to grow, it will save the labor of thinning, though many prefer to thin their rows, leaving the most prominent plants to grow.—*American Agriculturist*.

#### Fruit Prospects.

Wm. Heaver, of Cincinnati, Ohio, a nurseryman, writes to the *Ohio Farmer* that the prospects of a good crop of fruit in that vicinity was highly favorable, nothing has been injured as yet. The well ripened wood of last fall has served to render the fruit buds firm against any ordinary weather, as the winter has been a mild one, so far, the trees in some respects may be considered safe. S. B. Marshall, of Massillon, in the same State also writes that the peach buds are all right, and promise an abundant crop.

#### Correction.

In the article on the Pear in the *FARMER* of the 19th of February, written by Professor Holmes, in the second paragraph it reads "there was a practical Geological survey," when it should read "there was a partial geological survey." The error occurred in not correcting the marks made by the proof reader, and alters the sense of the author.

#### Bees and Bee Keeping.

BY W. B. TEGETMEIER.

#### SWARMING.

W. B. Tegetmeier, is at present one of the first authorities in England on all matters connected with the apia, and he thus writes relative to the swarming of Bees.—*Ed.*

In commencing this series of articles we wish to treat the subject in separate sections; each of which will be so far complete in itself as to be able to be read without reference to those previously published. As the history of a hive as a distinct colony commences when it issues forth as a swarm from that it previously occupied, we will, at that stage of its existence, examine its formation and mode of location in a new habitation.

At the commencement of fine weather the rise of temperature and the supply of fresh food increase the fertility of the hive to so great an extent that it possesses what the political economists would call a redundant population; there is no room for the inhabitants in the interior of the city, consequently they cluster in great numbers over the outside, or even hang in festoons from its entrance. This state of things usually lasts a few days, and then what is termed a swarm issues forth. Immediately before swarming, the bees on the outside of the hive manifest great excitement, rushing rapidly and confusedly over its surface, and over that of the alighting board; then comes the rush, the bees sallying forth in a manner which can only be compared to the exit of a panic stricken crowd from a theatre supposed to be on fire. If the hive

is a large and very populous one, the air is literally darkened by their numbers, and the loud humming noise made by the vibration of a hundred thousand wings is audible to a considerable distance. After a few minutes the swarm will be observed becoming more dense around some low tree or branch of a bush, and gradually the whole number of bees surround it in a dense cluster. This settling of the swarm takes place none the sooner for the discord of the key and warning-pan, or rattling of an old tin kettle, with which the cottager usually welcomes the appearance of his swarms.

Now comes the process of getting the bees into a hive, because, if this be not done, they will after a time fly off to a habitation of their own selection, which is sometimes a hollow tree or aperture in the weather-boarding of a house, roof of a church, or a convenient cavity with a small entrance. Hiving the swarm, formidable as the operation appears, is one of the simplest and safest possible: all that is necessary is to hold the hive closely underneath the cluster, and then, with a heavy piece of wood, give the branch a sharp and sudden blow; the jar loosens the cluster, and the whole mass falls into the empty hive.—Or, if convenient, the hive may be fixed over the swarm, and the bees will ascend into it of their own accord. With the most ordinary experience of common sense no danger is to be apprehended from the bees when swarming. At this time they never sting, unless wilfully injured; as for example, by striking the cluster with a stick. Last season a lady and a little boy of four years old, neither of whom had ever seen a swarm of bees before, hived one most successfully, simply attending to directions similar to those now given.

Whatever prejudiced cottagers may say to the contrary, no advantage arises from dressing the interior of the hive with sugared ale, herbs, or other messes; the bees thoroughly appreciate a new clean hive; and if it is of straw, a great amount of useless labor will be saved them by burning the loose ends off the inside with a lighted piece of paper, and then rubbing the interior with a coarse cloth or wisp of hay.

There is a mode, however, by which bees may be made to take to any hive with almost absolute certainty, that is, by attaching a few pieces of comb to the roof; these are immediately cleaned out, and the queen will lay eggs in the cells the first day.

#### On Grafting.

This operation is of high importance in practical gardening, for although hundreds of subjects can be raised from cuttings they can not be rendered useful for years; while the same cutting grafted on a vigorous stock might form a tree the second year. The whole strength of the stock may be thrown into the small piece grafted on it, whereas if grown as a cutting it could not grow at all until it struck root, and even then but slowly for a considerable time. The advantages of grafting are not limited to this nor any other, but are many. First, it enables us to multiply any new or distinct variety to a much greater extent than by any other means, because a piece with a single bud on it is sufficient for a graft. Secondly, it enables us, if desirable, to throw greater or lesser nourishment or vigor into the graft according to the stock we place it on. Thirdly, it enables us to change the variety of any tree, or shrub, or plant already established, instead of removing the old tree or shrub and placing a new one in its stead. The manner in which the operation is performed is adapted to the circumstances under which it is undertaken: for instance, if grafting is performed for the purpose of multiplying a variety, stocks of the proper kind are selected, for the purpose of conveniently removing when the graft has taken; generally a year established in the ground if for fruit trees, or a year old in pots. The first is because fruit-trees and shrubs in the open ground ought not to be more than three years in a place undisturbed; and therefore as one year after planting a stock is strong enough to be grafted, it allows of one year to let the graft grow, and the second to form a sort of head, or to grow into stuff, as the gardeners call it. These stocks may be grafted two or three ways: rapidly growing subjects, intended for standards, are grafted as near the ground as possible; some subjects are, however, grafted where they are to form the head: in either case the union of the graft or scion may be secured the same way, nor does it matter in what way the join is made. The most simple perhaps is, to cut the stock into the form of a wedge, or to split the scion, and cut the inside wood out so as to fit across it like a saddle: this must be done with a sharp knife, so that the bark may not be damaged by bruising. In placing the graft on the stock, if the wood be

both of a size, or nearly so, the fit may be perfect; but if the graft, which is mostly the case, be smaller than the stock, it must be placed on one side, so that the bark of the graft or scion on that side shall exactly fit the bark of the stock, for if the scion does not reach half way across the wedge of the stock, it will, nevertheless, soon cover it all, and even hide the join by its growth; whereas, if the scion were put on in the middle of the stock, so that the barks could not touch, no union could take place. When the stock and scion are made to fit properly, they should be tied firmly together, and covered with proper grafting clay, thickly enough to keep out the air and prevent the wind from drying up the juices before they have time to unite.—Another mode of joining these together, is to cut the top of the stock square, take a slice off the side, and then cut the scion or graft with a shoulder, and slope the inside so as to fit on the stock on the side where the slice was taken off. Here, too, the barks must be made to meet on one side, for it will unquestionably fail, unless the barks are made to meet all along one edge. Here the tying and covering with clay must be observed, the same as in the other case. Besides these modes of joining there are many others: one mode is to cut the end of the stock into a long slope, and the graft or scion into a similar sloping form; these two slopes being made to fit, it only remains to cut a slice in each slope, in such position that the tongues formed by the cuts will tuck into one another, and bring the slopes with a good splice: this tied and clayed as before mentioned, will secure a good union. To sum up the various modes of grafting, it matters not how the join is formed, so that it be neatly fitted, the two firmly tied, and the air well kept out by the clay. Supposing this to be joined near the ground, the graft must be watched, and only the strongest bud be allowed to grow up; this should be encouraged to grow straight until it is tall enough for the trunk of a standard. All this time, the side or lateral shoots must be removed, except the top four or five, and as new ones come at the bottom the top ones are to be removed, so that there shall not be more than the half-dozen branches when the trunk shall have attained the height it is intended to be; these half-dozen shoots are then allowed to form the head; of which, however, we shall speak at a future time, when, after mentioning the various modes of grafting, we give lists of the best stocks on which to graft all the leading subjects.

#### Sowing Seeds.

The condition in which the ground ought to be to receive garden seeds, is one of those subjects on which so much difference of opinion exists; for we often see a successful result from two causes, widely differing from each other in their origin; and the sowing of seeds, by hand, is often done in a manner diametrically opposite to that in which Nature performs the same operation. The latter mode is simple enough. Seeds ripening in the summer, or autumn, of each year, sow themselves, and either fall on, or are scattered over, the ground at the time when its extreme dryness precludes the chance of its vegetating then. Even if it did, the hardness at the top would prevent its obtaining nourishment there. But many seeds that ripen in summer do not grow until the following spring, even when they fall on ground apparently favorable to their growth. This wise provision of Nature prevents the plant vegetating at a time when it is sure to perish, by the cold weather likely to follow; and though the seed may fall on hard stony ground; a winter's rain and frost so modifies it as to suit it to the wants of the young seedling. This is one of Nature's modes of sowing seeds: let us see how far we imitate it.

In the first place, it is proper to observe, that many of the most useful of garden plants are from climates much warmer than our own; some, in fact, will not ripen their seeds well in this country, though they attain a useful growth. Even hardy trees, bearing large seeds, reproduce themselves sparingly. A Sweet Chestnut, for instance, produces, in favorable seasons, abundance of well-formed nuts; but a young self-sown seedling tree is rarely met with—I am not certain of ever having seen one—while the Oak, Ash, and Sycamore, and other trees (all, doubtless, indigenous trees) reproduce themselves to an extent only lessened by the ravages of birds, insects, and other natural enemies; and the places in which many of these seeds fall are anything but favorable in appearance to their growth. Nevertheless, Chestnuts will also succeed; but they are generally carefully kept through the winter on some dry loft, and sown in spring, when the genial warmth of the season starts them into growth, which they continue in until they have attained such a size as to withstand the rigor of the next winter.



## FOREIGN AGRICULTURE.

## Sheep Breeding on Stiff Soils.

DISCUSSION BEFORE THE LONDON FARMERS' CLUB.

Mr. R. Bond, of Kentwell, Suffolk, after reciting the difficulties incident to stock feeding, and the failures and miscalculations made by farmers, especially in the purchase of food at a dear rate to feed to cattle, whilst wheat was cheap, under the mistaken notion that the dear food paid as a cheap manure, said:

"Above all, I trust you will bear in mind that I am treating upon stock farming on stiff retentive soils which require drainage. I have shown that buying old beasts at a dear price, and fattening them expensively, does not answer; that all grazing does not pay; I have shown that the system of all fallow, no root crop, and no amount of stock, will not do; and I have shown that attempting to fatten that which has no disposition to fatten, is a mistake. It was with an experience akin to this that I undertook the management of 600 acres of arable and 200 acre of pasture land, in round numbers, in 1853, in Suffolk—it was land requiring drainage; the pastures especially were wet, cold and unproductive; it was land upon which no sheep had been kept except some two or three score in the summer months, and it was considered the soil was unsuited for sheep; it was considered madnes to institute sheep, notwithstanding we established a flock of 25 score, or 500 ewes. We at once drained both plough and pasture, adopted autumnal cultivation, put aside the bare fallow system, cultivated mangold wurtzels and swedes, and we have since been able to rear 650 lambs annually, to fatten out an average of 40 beasts, to rear an average of 30 young beasts, to fatten an average of 10 score of sheep, to keep 15 cows, 15 colts of different ages, and 30 horses, and an average run of pigs. Now, I consider there is nothing extraordinary in this, though clay land, and although at the commencement much out of condition; but the secret has been large and increasing breadths of mangold wurtzels, till this year, upon the four-course system, we have extended the breadth to a hundred acres, which at an average of 30 tons per acre equal 3,000 tons of good valuable food; and in our eastern counties exceeds by one-third the produce of swedes, and the mangold wurtzels have superior fattening qualities. Independently of our permanent course in keeping a flock of breeding ewes, we have varied our system of grazing, generally buying calves, rearing and fattening them for sale at two years old; but if beasts in good fresh condition have promised to be beneath the value at which we could rear them, we have then purchased beasts in the autumn, or in the spring, when partially fattened; or if beasts have been dear, and sheep proportionally cheaper, we have then fattened sheep in yards instead of beasts. We have endeavored to carry out the principle of buying the most paying article in the cheapest market, and to secure the largest amount of profit. After every trial we pronounce greatly in favor of the flock of 500 ewes, as the most paying; and from the improved condition of the land, the number of ewes might now be advantageously increased from 25 to 40 scores; and I believe such an increase of the flock to be the best remedy against the present depression in the price of wheat.—Last year the produce of the 500 ewes realized, for 600 lambs sold in August, £884; 61 tons of wool, £144; total £1,028, which exceeds the rental value of the lands. This year the produce of the flock, viz., 650 lambs, and 60 tons of wool, which realized £970; and in some other years the return has been in the same ratio. We have been gradually substituting Hampshire ewes for Southdown ewes; and we have crossed either with Cotswold tups, hired of Mr. Sexton, of Earl's Hall, Cockfield, Suffolk. We have found that mutton and wool answers infinitely better than breeding and blood. Size and frame are necessary for early maturity, and we have no notion of small pretty lambs, which can not command a ready purchaser. We made trial of some pure-bred lambs, by selecting a few of the best Southdown ewes, and placing with them Southdown tups hired from the best flocks, but the progeny were very unpaying, even allowing that they consumed less food when compared with lambs of the first cross. The Southdowns are, undoubtedly, admirably adapted for downland and a short herbage, but not for the soil or the system we have pursued. In the management of the flock, from the ewes being the scavengers of the farm, they are kept inexpensively; but they are always maintained in a sound, healthy, thriving condition; and one main point is, to have them upon the arable land as much as possible, because of the manure, but not at a wet or improper time. In

October the ewes are placed in different lots, upon the maiden layers and stubbles generally, whilst the tupping is going on; also upon the mangold wurtzel tops, after the roots have been carted. In November they have the swede tops, perhaps a pieve of rape, also the pick of the old grass on the pastures; and, as the weather becomes wet and cold they are taken to two good, roomy, well-drained, well-shedded yards, where they receive cut barley, oat, pea, bean, or wheat straw in troughs, also a supply of any clean, fresh-thrashed straw, placed between hurdles, or in racks, from which they eat the straw most freely. I have been astonished at the amount they will daily consume. Those yards become their winter quarters. They are littered with straw as necessary; and I have always noticed in coarse, wet weather, upon entering the yards early in the morning, that every sheep is under cover in the sheds, which simply proves that they are as great lovers of comfort and warmth as the human or any other animal. We adhere to the yards in the winter; as ewes folded at night upon a bleak field, exposed to severe frosts, cold cutting winds, rain, sleet, and snow, are in a poor condition for progress; and we prefer to cart the manure to the field in a dry season, rather than to, deposit there under such unfavorable circumstances to the animal and to the soil. Each day the ewes have gentle exercise, or a free ramble upon an adjoining pasture, where they receive a daily allowance of 100 bushels of swedes or mangold wurtzel per diem. This treatment is continued till within a month or five weeks of lambing, when a few bushels of crushed rape cake are daily added to the straw chaff, which cake we consider may advantageously be passed through the animal instead of applying it direct for a grain crop to the soil.—The rape cake is always eagerly consumed, and even such inexpensive artificial food is very beneficial in preventing too great a reduction in the condition of the ewes prior to parturition. About three acres of cow cabbage are grown, some of which are given to the ewes ten days previous to lambing, or they have a small bait upon aftermath grass, which assists to ease in parturition, and secures a flow of milk. After lambing, the ewes are placed with the lambs upon a piece of aftermath grass, which has been reserved, where they received mangold wurtzels and cabbages, and return to the yards at night for rape cake and cut roots with straw chaff, till the weather becomes sufficiently warm for the lambs to sleep out, which is not usually till April. The lambs are allowed cabbages, and a small supply of bean meal and rape or oil cake, apart from the ewes. In May or June the flock of ewes and lambs receive mangold wurtzels upon the rye or rye grass or pasture, the lambs running forward for the best feed; after which, in July, the lambs are weaned, and placed upon good clover or pasture, where they continue to receive a small supply of artificial food, and are usually sold at the commencement of August. After weaning the lambs, the refuse ewes are withdrawn and fattened; whilst the flock ewes are shifted to inferior food, and gradually prepared for the following tupping season; they are allowed a fold of tares or rape, or second crop of clover, in August and September, and have the run of some pastures, also the stubbles, after harvest. Now the advantages of the system are these—the ewes are treated as the refuse consumers of the farm; they are kept in a healthy condition, but they are kept inexpensively. They subsist in the autumn upon the stubble feed and root tops mainly; upon straw chaff and straw, and a small portion of roots, in the winter; in the spring they consume straw largely, with rape cake and roots; and in the summer months green food is plentiful. The return is, as I have shown, nearly £1,000 per annum, which will allow of some expense in the giving artificial food to lambs; and such a system of lamb-feeding answers admirably. I can observe, that it not only improves the lambs generally, but it prevents a number of refuse lambs, which usually make but a poor return. I think food thus given pays 10 per cent. beyond the improved value of the manure. I can find, further, by having the ewes off the land in the wet weather of winter, and upon it when dry in the autumn, spring and summer, the farm is much improved—I can always observe the marked superiority of the wheat, and other crops, from the folding. I can notice that poor heavy land pastures are much fined and improved, even beyond the advantages arising from drainage, by sheep feeding; the herbage is thereby fined and much thickened; but I recommend that the ewes be folded upon the arable and not upon the pasture, and that muck be applied to the pasture in some cases instead of the ploughed land. Such an exchange I have

found very beneficial. I would here remark that the dry food of winter much assists to a healthy parturition, although many of the lambs were large, and weighed when born from 12 to 16 lbs. When, from the cheapness of turnips upon good feeding ground, we have let at home with the flock to consume the turnips at a nominal price, we have been considerable losers in an increase of deaths, both of ewes and lambs, at lambing. I know it may be objected that animals consuming straw largely are but poor manure makers; but this is no valid objection: for if we can make a good pecuniary profit by the system, we have money in hand with which to enter the manure market. Further, the lambs and ewes consume some artificial food; and by economy of straw, with other stock upon the farm, in stall-feeding beasts and box-lodging cart-horses, the spare here made will suffice for the straw for the ewes, and a much larger quantity of stock can by this system be kept."

## The Swamp Lands.

There were two bills concerning the Swamp lands enacted at the recent session of the Legislature, and one of these is as follows:

An act to provide for the Settlement and Drainage of Swamp Lands by actual Settlers.

Section 1. *The people of the State of Michigan enact*, That the Commissioner of the Land Office is hereby required to issue a certificate of purchase to every settler or occupant of the swamp lands belonging to this State, in the proper legal subdivision, forty acres of said lands, whenever it shall be made to appear to said Commissioner that such settler or occupant has actually resided upon such forty acres of land for the period of five continuous years, and that he has also drained the same, so as to comply with the provisions of the act of Congress, approved September twenty-eighth, by which said lands were conveyed to this State.

Sec. 2. Before any such settler occupant shall acquire the right to occupy or drain any of the swamp lands, pursuant to the provisions of the preceding section, he shall file with said Commissioner his application, under oath, for the privilege of entering upon said land, specifying the same for the purpose mentioned above, and obtain from the Commissioner a license to enter upon and occupy and drain said lands, for the purpose of obtaining title thereto.

Sec. 3. No person shall be entitled to the benefit of this act until he shall have made oath in such form as shall be prescribed by the Commissioner of the State Land Office, that he is not the owner of forty acres of land in any State or Territory of the United States.

Sec. 4. And it is further provided, that the license for settlement granted under this act shall contain a clause which shall expressly provide that the settler or occupant shall not be authorized to cut, take, and carry away, pine or any other valuable timber, unless it be to clear the land for cultivation, and then as much only, as may be necessary to improve the same. And for a violation of the aforesaid condition, he or they shall be liable to all the forfeitures, penalties, and liabilities of a trespasser upon State lands, as now, or may hereafter be provided for by law.

[A friend who desires to point out to some of our farmers how they can do a fair business equal to any insurance, requests us to publish the following suggestions in reference to—]

**LIFE INSURANCE VS. APPLE-TREES.**—Among the many beneficent measures that have been proposed for the advantage of mankind in modern times, that of Life Insurance holds a prominent place. In a country like ours, where a man's labor is his capital and the only resource he has from which to draw the means of maintenance for himself and family, it becomes his duty to make such arrangements as will, in case of his death, secure to that family a sufficient competence for their support.

Nor are those that have at present a fortune at their command, to be excused from taking thought for the morrow. Riches are fleeting. Some unlucky speculation or unforeseen and uncontrollable accident destroys at once the accumulations of a life-time, and the millionaire of yesterday is to-day a beggar. So long as life continues, he can, probably by his own exertions, provide for the necessities of those dependent upon him; and, by small yearly payments to one of the many Life Insurance Companies of the country, can secure for them a competency for their future wants. When then poverty and its accompanying misery, wretchedness, and suffering, can be so easily prevented, who will hold a man guiltless who makes not some such provision. A substitute for this method has, however, been proposed, which for those liv-

ing in the country is an excellent one. It is this: "Let a person plant ten acres of apple trees."

Now let us view both sides of the question, and see which of the two propositions would be likely most to benefit the community. The one recommends paying a certain sum, to obtain insurance for a larger amount, to be received by his family after his death. In this case there is no producing or earning property; it merely passes from one to another. In the other case, a man plants ten acres of apple-trees, and produces, by his own exertions, a valuable income.

We may not be able to make a perfectly correct estimate, but we will keep it low.—Supposing the land to be worth \$20.00 per acre, and the trees \$25.00 more, the amount would be \$450.00. During ten years the improvement of the land will more than pay the interest, and for care and labor required by the trees. For the last five years, if they are well managed, we may suppose them to yield 25 cents per tree annually; and allowing eighty to the acre (some plant one hundred,) this will give \$200, amounting in five years to \$1,000—paying the investment, and leaving a balance of \$550.

For the succeeding ten years, \$1.00 per tree would be a very low computation, thus giving the sum of \$8,000; to which add \$550, the net gain for the first ten years, and we have \$8,550—to say nothing about the interest that might have been realized. From thenceforward, \$1,000 a year would be far below what might be expected, if we take some orchards in New York as a standard, which have yielded from four to six hundred dollars per acre. We have proof that our estimate is about fifty per cent. below what has been already realized.

## HOME NOTES.

## Drain Testimony.

A. P. H., a correspondent that is endorsed by the *Ohio Cultivator*, thus speaks of the effects of drains: "with drains at proper distances, say six to eight or even ten rods—depending on the amount of water to be discharged—you may make land, before too wet for corn, in any season, ready for the plow, four days to a week earlier than any other field—easier tended by almost one half—and never suffering from drouth—produce crops that can otherwise be only raised in the best seasons on the best lands. This at least has been my experience the past season. We were able to get our corn planted good—it came up well—and grew in spite of the continued rains—there was no difficulty in tending whenever the crop needed it, and the yield as good as in ordinary seasons. In fact the only drawback upon a good crop last year, bad as it was, was the want of drains." The writer is down upon open ditches; and says he was pretty well tired out keeping them clean, having his cattle get into them, and out of them, and he wants them no more.

## Thorough bred?

Sir George Stephen in his amusing and instructive work entitled "Adventures of a gentleman in search of a horse," thus defines the term *thoroughbred*: "when the term *thoroughbred* is used in its strict acceptation, in reference to the pedigree of a horse, it means, that for five generations back, its purity of blood can be deduced without uncertainty; and by *purity of blood* is meant a lineal descent from the Barb, Turk or Arabian. The pedigrees of our celebrated race horses, being matter of record on the stud book, it is always sufficient to trace any horse to an ancestor of acknowledged breed, such as Eclipse, Childers, &c.; and if this can be done, on the side of both sire and dam, no further pedigree is necessary."

It will be seen that in horses, "purity of blood" is indispensable to start with, then comes the trial of the horse against all others, and then his acknowledged place and entry on the stud book, and then the performance of his progeny. For though a horse with a dash of mongrel blood in him may chance to perform well, his progeny is not safe, and they eventually lose the distinction of place and the family is wiped out.

## The Alsike, or Perennial Clover.

Patrick R. Wright of Coburg, C. W., writes to the *Canadian Agriculturist* that he has tried this variety of the clover the past year and found it to be of the highest value. The year before he tried it on a small scale. But last year he tried four acres, and it succeeded admirably. The crop being estimated at four tons per acre of hay. On much of the field it was over six feet in length. Cattle thrive remarkably well upon it. Mr. Wright has shaken out some four hundred and fifty pounds of seed from his crop.

## For the consideration of Farmers.

John H. Willard, of Wilton, Maine, declares in the *Maine Farmer* that he has repeatedly raised within a few years past from 80 to 100 bushels of dry shelled corn to the acre. If this can be done in Maine, with its

climate so inferior to ours for such a crop, why should not we be able to do the same here in Michigan, where the soil and climate are both superior and much fitter for the perfection of the crop?

## Sows and their Pigs.

It is well enough to know at this season, that a liberal diet of roots, such as turnips, beets, carrots, parsnips fed to sows with their other food, will aid in preventing them from having an appetite for feeding upon their young. Corn bran, or meal is very drying, and tends to constipation. Give the sows succulent food, that will promote a flow of milk, and they will not have to turn round and shorten the demand by cutting off the consumers.

## Pigs and fattening them.

Sowell Hull of Cassopolis writes us, that Mr. Reuben Smith of New Buffalo, killed last winter, two pigs eight months and fifteen days old, weighing 687 pounds, and weighing 124 pounds more than those mentioned in the *FARMER* as fattened by Mr. Hopkins. The method of feeding these hogs was for the first six months, they had the milk of one cow and the slop of a small family, next three months shipstuf; and the balance of the time corn meal wet up with cold water.

## A thoroughbred for Illinois.

A thorough-bred stallion, "Big Boston," a son of Boston, out of Tranby, has been purchased by a firm at Jacksonville, Illinois. This horse has on the dam side a most excellent pedigree running through Eclipse to Medoc's dam Young Maid of the Oaks, a celebrated mare by imported Expedition.

## Cooking food paying for fuel.

Samuel A. Clay, of Bourbon, has been experimenting in feeding several lots of hogs, changing them from raw to cooked, and from ground to unground food, with the following results:—One bushel of dry corn made five pounds and ten ounces of live pork; one bushel of boiled corn made fourteen and seven ounces of pork; one bushel of ground corn, boiled, made in one instance sixteen pounds seven ounces, in another nearly eighteen pounds of pork. Estimating corn at ninety cents a bushel, and pork at eight cents a pound, we have as the result of one bushel of dry corn, 45 cents worth of pork; of one bushel of boiled corn, 115 cents worth of pork; and of one bushel of ground corn, 136 cents worth of pork.—*Ohio Farmer*.

## A trotter for England.

Mr. Ten Broek, has purchased from W. D. Ranger of Lexington, Kentucky, his fine trotting horse "Ranger," to take to England with him. The price was \$2500.

## Eggs.

There are annually imported into England from France about nine thousand tons weight of eggs, and the value of this article is said to be \$30,000 more than the value of all the wines imported from the same country. It is no wonder that poultry receives such attention in France and England when they have such markets and such a demand as this statement exhibits.

## The Oakland Co. Agr'l. Society.

The Executive Committee of the Oakland Co. Agricultural Society held their adjourned meeting on the 23d ult, and after transacting considerable business appointed Wm. Whitfield, Moses Wisner, W. W. Kelsey, M. S. Hadley and A. C. Baldwin the business committee for the year. A resolution was passed also giving the business committee authority to appoint the time at which the fair should be held; and another directing a special committee to prepare an address to the Farmers of Oakland County, stating the condition of the Society, and giving a history of its progress from its organization to the present time.

## The Wheat.

So far as personal observation goes, the wheat in Ingham, Clinton, Ionia and Kent, have not borne the winter well. The color of the growth is generally bad, and in many instances, it has been winter killed. Upon heavy soils the roots are hoar out, and the general look is unpromising.—*Lansing Rep.*

## The risks of importation.

It will be remembered that some months since we noticed that a Mr. Barret of Henderson, Kentucky, had made large purchases of the best improved stock of all kinds Cattle, Sheep, Swine and Poultry, that he could find in England, Scotland and Ireland. It seems then when the vessel containing them arrived in New York, only one cow was alive. One after another the cattle sickened and died amongst them being a bull which cost \$5,000 and a cow for which \$2,500 was paid.

## A Berkshire Boar.

It will be noted that a Berkshire Boar is advertised for sale. The dam of this animal was brought from the stock of L. G. Morris by E. N. Wilcox Esq., of this city in whose possession she now is, and the sire was from the imported stock of Col. Prince of Sandwich, a gentleman who has been at much expense to procure and keep a large amount of stock on the other side of the Detroit River. The Messrs Appletons, announce a new school edition of Virgil, published by Professor Frieze of the University of Ann Arbor.



## NEW ADVERTISEMENTS.

J. B. Bloss & Co., Detroit, The Hand Scavenger.  
J. Sloan, Albany,.....Wilson's Albany Strawberry.  
F. E. Eldred, Detroit,.....Berkshire boar for sale.

## ANSWERS TO CORRESPONDENTS.

M. F. Monroe.—Yours on Sorghum received. Very good.  
R. G. Thorneille.—Have written to Albany, N. Y., relative to the rabbits. These are none to be had here.

## MICHIGAN FARMER.

R. F. JOHNSTONE, EDITOR.

SATURDAY, MARCH 12, 1859.

## The Opening of Navigation

Is one of those annual events which signify that the work of another year is at hand, upon the performance of which will result, in great part, the prosperity of the State for the ensuing twelve months. The people of Michigan have just passed through a winter almost unparalleled for the severity of the monetary pressure. Throughout a large part of the State, the general outcry has been that there was nothing to sell. For three years the main crop of the State to bring in cash has been light. Diseases caused by atmospheric changes, and losses occasioned by insect enemies, with which the western farmers as yet have not learned how to contend successfully, have swept away the hopes of a large portion of those engaged in agriculture. Prices, however, have been maintained much beyond the hopes of the most sanguine, and it has been tantalizing in the highest degree to know that if crops could have been secured, there would also have been secured at the same time, the means of liquidating debts, and of a hopeful preparation for the future. The past certainly points out that the efforts of the farmer must be directed with more skill than has yet been exhibited in our western agriculture.

From what we can learn, whilst the very early opening of navigation will be a source of some benefit to the public, in commercial circles it is thought that very little will be made out of it, as it is generally supposed there will be shipping enough ready to carry forward more than double the amount of freight which will offer. Freights therefore will rule low, after the first fleet returns from their trip eastward. Besides, the opening of the lake navigation so long before the opening of the New York canals, has a tendency to accumulate a very large amount of grain at Buffalo and Oswego, and thus depreciates, or rather causes a fluctuation in breadstuffs, that is apt at this season to affect buyers injuriously. The markets therefore cannot be steady till after a direct trade is opened with the east. The New York Canal Board has also, during the past winter, lowered the whole tariff of tolls on the great canals. This lowering of the rates on freight will also cause shippers to pause before forwarding large amounts eastward, and must have the effect still further of encouraging a retention of shipments at the ports of Buffalo and Oswego, unless there should be some special demand springing up in the more eastern markets, which would enhance prices so much that it would be desirable to take advantage of them. This does not now look likely.—The New York market has seldom commenced with so large a supply, and during the whole winter just passed, there has at all times been a pressure of breadstuffs, which, in the absence of all export, has kept holders in very tight quarters. Perhaps when it is found how little produce will be shipped from the lakes this season, there will be some relief to these parties. But with navigation open, we soon begin to solve the problem, and to note whether the acknowledged failure of crops at the west will affect the markets beneficially for those who have something to sell.

## Death of the Postmaster General.

The telegraph announced the death of the Hon. A. V. Brown, of Tennessee, the Postmaster General, on Tuesday last at Washington. This gentleman had been distinguished as a member of Congress, and also as Governor of the State of which he was a citizen, previous to being chosen a member of the cabinet by the President. His loss will be felt severely at the present time, when the affairs of the Department are in such a condition as to require all the experience and ability of the deceased to carry it through the period intervening between the past and next sessions of Congress. The death of the third assistant or head financial officer of the department renders the loss more deeply felt at present, and in some degree will render prompt action necessary to meet the exigencies which must accrue.

## For Texas.

On Thursday, we found at Mr. Blindbury's Hotel stables, several head of Shorthorns bound for Texas. Amongst them was PRIMUS, the very excellent son of Sirloin, which the Messrs. Sly brought into this State last spring, and to which was awarded the first premium on Shorthorn yearling bulls, at the State fair of 1858. In company with these was the very excellent cow White Jacket, with her last year's calf, Arzone, by her side. Mr. Nathan Sly, of Dexter, whose health has been suffering from an injury received last year, accompanies these cattle to Texas.—They have been bought, with some others, by Mr. Berthollet, of Rosebank, Amherstburgh, C. W., for the purpose of sending to R. M. Jones, chief of the Choctaw nation in Texas. Primus, we have had occasion to speak of as promising to be a most servicable animal, when he was first brought into the State.—His growth for the past year has been such as to confirm that good opinion, and we have every assurance from his pedigree, his own qualities, and his growth for the past year, that he will prove a most useful animal to improve stock wherever he may go.

## A good project.

The *Grand Rapids Eagle* inform us that on the first of March the commissioners to locate and survey one of the State roads provided for in the swamp land act passed at the late session of the legislature, are to meet to lay out the road to be made between the south line of Newaygo, and the village of Northport, on Grand Traverse Bay. This road will open up an immense extent of territory to settlement, and will prove a most beneficial measure. The road itself is to be six rods wide, and to be located in the driest and most passable direct route between the two places.

## War Prospects.

Every movement points to war in Europe, and we cannot doubt but that when the conflict comes on between the two powerful nations of Austria and France, it will be terrific. Each have been gnashing their teeth at one another for some time, and when the leash is slipped, there is no one can prophesy the result. The war will be confined to but little, when compared with the fleets of France, which in the estimation of some are equal to those of England. The Arabia has the following in her reports as the latest intelligence as to the position of the two governments.

The Paris correspondent of the London *Herald* says war is so far resolved on that the corps to commence the campaign has been designated, and orders given to the Minister of War to prepare a plan of operations. It is said that the representatives from foreign courts in Paris have abandoned all hopes of a pacific solution. It is reported that orders to prepare for a campaign in Italy were given by the Emperor immediately after his return from Compeigne.

Another circular is issued by the Minister of the Interior to the prefects of departments, the purport of which is to express the confident hope that, notwithstanding the Emperor's desire to maintain peace, should he be forced to war he may count on the patriotism and devotion of the French people.

A French War Office circular directs that troops be trained to forced marches and the night bivouac. All the military surgeons are ordered to join the corps.

An immense quantity of lint was sent to Lyons. All the regiments of the Imperial Guard are to be supplied with rifled cannon on a new plan.

A Genoa letter says that France has taken up seven transports to hold themselves in readiness in that port.

The *Times* says the Austrian army in Italy will be placed on a war footing.

The Second Chamber of Hanover unanimously resolved to request the government to obtain from Federal Diet resolutions calculated, by their unanimity and energetic execution, to avert the threatened danger of war, but, if necessary, to repel with united Federal power attacks on Austria and Germany.

It is reported that Napoleon is about to visit the King of Sardinia.

The Piedmontese volunteers are withdrawn from the frontiers of Modena, and ordered to confine themselves to the interior of Italy.

Three new forts are to be constructed at Venice in six weeks. Five thousand workmen are to be employed.

Fermentations are increasing at Milan.

The Ionian Parliament rejected Gladstone's project of reform.

The Turkish government is arming frigates, and preparing numerous transports. Their destination, in case of war, will be the ports on the Adriatic.

From all these rumors, and reported movements, it is evident, not only that war is resolved on by the French Emperor, that even the time and method of opening the campaign are fixed, and that with the early break of summer, the south of Europe will be the theatre of events that may have an important bearing upon the trade and commerce of the United States, and which besides giving employment to a large portion of our commercial marine, may affect our produce and create a large demand for the pork and beef of the western States, and give a stimulus to their production of the healthiest character.

## Literary News.

Silliman's Journal for March is received. It contains articles of great interest to Science, and its miscellaneous record keeps the reader well advised of what is going forward abroad and at home, in circles and amongst men that are not of every day acquaintance, but whose movements are of much importance to those who take an interest in Scientific progress.

The forth coming volume of Tennyson, entitled Prince Arthur, is to contain four poems, and will include the history of the bewitchment of Merlin by the blinding wiles of Namee, a type of wicked womanhood; of the loves of Elind, an example of faithful perfect loving truthfulness in woman; of the fair maiden of Astolat, who loved Launcelot hopelessly till death; and the repentance of Guinevere at Glastonburg.

Hall's Journal of Health is at hand. The editor, wields a trenchant probe, that goes to the bottom, and discloses the cause of many of the evils that afflict society by not paying attention to dictates of common sense. It is a useful Journal, and its teachings are valuable.

Charles Dickens is engaged upon a new serial tale, but it is said that it will be reserved to be read, and not published at present. Lectures and readings being found the most profitable.

Alfred B. Street, the poet and State Librarian of New York, is getting ready a new poem for publication during the summer.

The long expected work of Col. Fremont relating his explorations and adventures in the Rocky Mountains, is announced for publication in May. It is to be profusely illustrated and printed in the style of Kane's Arctic exploration.

Derby and Jackson are about to publish a new volume by Alice Carey, and also a new edition of Boswell's Johnson.

The son of Victor Hugo, has published the first volume of a translation into French of Shakespeare's works.

Bulwer's son, known by the *Nom de plume* of Owen Meredith, has written a new volume of poems, which are much praised by the critics. The *Athenaeum* calls them "Lilies without and Roses within," they are excellent in beauty of language and grace of thought.

Scott's reprint of Blackwood comes to us containing as its first article a caustic Review of Carlyle, and evidently one well deserved. For no genius however powerful, has the right to thrust a mass of crude jargon upon the world of letters, and have it dignified with the title of history "Carlyleism" and "fudge" are as closely allied as the sublime and ridiculous. There are other papers of much value, such as a notice of Rawlinson's Herodotus, the periodical press, Mephistes and the antidote, and a continuation of the cruise in Japanese waters; with such articles Ebony must be a favorite.

## Political Intelligence.

Congress has expired by its own limitation. The country feels it as a great relief; for it was impossible to foretell what would not be done. The introduction of a change in the postage law, odious to the people, and oppressive in its features, was one of the measures which the men, women and children of all parties looked upon with suspicion. The adjournment of Congress without any adequate provision for the post office department is not right, but will undoubtedly be provided for. There is a general impression abroad that the President will feel obliged to call an extra session of Congress, during the summer, or by the close of the financial year.

The re-issue of twenty millions of treasury notes was authorized at the very last moment of the session of Congress.

Printing frauds of the most glaring nature have been discovered, and the testimony and the reports on the subjects have been handed over to the District attorney of Washington, that a criminal prosecution may be commenced against Mr. Seaman, the Superintendent who is charged with malpractice, levying black mail on contractors, and selling out for bribes the contracts for paper and work.

Much bribery and corruption has also been reported as being prevalent at the several navy yards, but beyond the exposure, we do not note that any measures have been adopted to secure a reform.

The Senate convened at Washington immediately on the adjournment, and are in session for the purpose of confirming nominations, considering treaties, and performing other necessary executive duties. The new Senator from this State, K. S. Bingham, has been placed on the committee on public lands, in the place of the Hon. C. E. Stuart, whose term expired.

The Third Assistant Post Master General, John Marron, died on the 3d instant.

The President has declined to approve of the bill providing \$56,000 to aid in deepening the channel at the St. Clair Flats. This we consider a grave error, and trifling with the lives and property of the people of the Northwest. So small an appropriation could not have affected the national treasury materially.

The Indiana Legislature have passed a license law regulating the sale of liquors.

The Yacht Wanderer has been condemned, and is advertised for sale by the U. S. Marshall.

The first election at Marshall under the new city charter, took place last Monday, and resulted in the election of the Republican candidates.

The Indiana Legislature adjourned on the 7th instant. There has been a fight between two senators, that was a most disgraceful affair. The Senate strongly censured both. One of the Senators named Heffron, was so conscious of his position that he resigned his seat, and the other Gooding, has been arrested; by order of the Senate for attack on a Senator.

It is said that the President will call an extra session of Congress in July, as he says he cannot take the responsibility of closing up the post-offices of the country, as he would have to do before December next unless there is an extra session and means provided.

All the contractors and route agents without an appropriation will have to wait for their pay or do without for a time. They will be paid of course.

No appropriation was passed for continuing the building of the Capitol. This is wrong, and will entail a loss that must be made up hereafter.

It is reported that there is to be a general attempt to raise the expenditures in all the departments, especially in the Treasury division.

Amongst the names mentioned for the appointment of minister to Mexico, we find those of Senator Benjamin; Theodore Sedgwick, of New York; Robert Mc Lane, of Maryland; Gov. Price, of New Jersey, and Caleb Cushing. Mr. Mc Lane, however, obtained the appointment and we learn after being confirmed unanimously by the Senate, has entered upon the duties of his mission.

A. N. Zevely, of North Carolina, has been appointed third assistant post-master general to fill the place of Mr. Marron deceased.

The President sent into the Senate the name of Joseph Holt, the Commissioner of Patents on Wednesday last, as his nomination for the office of Postmaster General. The appointment was immediately confirmed by the Senate. The Senate also confirmed John Hubbard, of Me., as Boundary Commissioner, for which Mr. Wiggins was recently nominated, but rejected.

The Senate also confirmed the following: Geo. W. Jones, ex-Senator of Iowa, as Minister to Bogota; John Pettit, of Ind., as Chief Justice of Kansas, vice Leconte; Bartholomew Fuller, of N. C., as First Auditor of the Treasury. M. D. Potter, heretofore rejected as Collector at Toledo, was again nominated, and confirmed.

The Senate was to close its extra session on Thursday.

The general election in New Hampshire was held on the 8th instant.

The Republican candidate for Governor, Mr. Goodwin, was elected by about 3000 majority, and the three Republican members of Congress, by majorities somewhat less than those given at the Congressional election two years ago.

One of the chief political events of the week, has been the admission of the new State of Oregon, as a member of the Confederacy. Senators Smith and Lane were present and sworn into office the last week of the session.

## Foreign News.

The Arabia with dates to the 24th of February arrived at Halifax on Thursday last. Her advice does not seem to indicate any improvement in the Breadstuff markets of London or Liverpool.

The most important news brought by her, is that the Atlantic Telegraph Company had held a general meeting, at which it was announced that the government had offered a guarantee of 8 per cent, on a capital of £500,000, on certain conditions, which did not transpire.

Lord Cowley has been appointed on a mission of peace to Vienna. It is supposed that the project which he will submit is to have the Austrian government withdraw its troops from the Italian states that are not a part of its own possessions.

There have been two arrivals the past week, namely the screw steamer Jura, from Liverpool the 18th of February, and the Europa with dates a day later.

The British Parliament were in session, and in it as yet little important business had been done. The affairs of the Ionian Islands had been discussed. A project for the joint construction of a telegraph line with Austria, to extend to Alexandria in Egypt, had been agreed upon.—A bill to sweep away all distinctions between newspapers and other periodicals was to be introduced. Changes are reported in the ministry, including the present Lord Chancellor, General Peel and Sir E. B. Lytton.

The proposition of England is to increase the Indian army, but to reduce the home and colonial forces. This is considered an indication that the country will take no part in any European war now threatening.

The projector of the canal across the Isthmus of Suez, E. Lesseps, has left Paris for the express purpose of commencing the great work.

The *Press*, an influential paper, but very rabid against Austria, has received a warning. This warning is reported to be given at the instance of the Austrian Ambassador.

This action has been construed as a sign of peace. Austria agrees to send a representative to the Paris Conference, provided England and Prussia will guarantee that the Italian question shall not be discussed.

The Paris correspondent of the *Times* asserts, on trustworthy grounds, that the king of Sardinia is determined on making an attempt to drive out the Austrians, with the object of constituting for himself a kingdom strong enough to resist Austria on the one hand, and France on the other, if need be, and that it will comprise Venice and at least 12,000,000 subjects. An absolute certainty is felt at the Court of Turin that France will help Piedmont against Austria, and that Russia will be with her tacitly if Austria is left to fight alone, but actively and openly if any other power assists Austria. England and Prussia are expected to be neutral. The above is asserted to be the deliberate plan of the King of Sardinia and his Cabinet, and nothing but the withdrawal of France will divert them from it.

Meanwhile a camp of 100,000 men is being formed at Tonlon, with all equipments necessary for transportation at a half hour's notice and all the movements of the French military are warlike, the whole army, according to some accounts numbering 600,000 men being placed on a war footing.

Sardinia is stated to have established two regiments for the purpose of enrolling in them Austrian deserters.

A council of war has been called at Vienna, to be composed of five of the most distinguished general officers.

A Vienna correspondent of the London *Times* says that information has been received from France removing all doubts as to the intention of Napoleon, and it would not be surprising to see the Austrian army put suddenly upon a war footing. 600,000 men could be fully prepared for action in six weeks.

Another Vienna letter says Russia is calling her furloughed soldiers, and marching troops from Tegenroff to the Moldavian frontier.

The Indian war is almost ended. Dates from Bombay to January 25, advise that the campaign in Oude ended January 8th. Ten leaders had surrendered. The Begum, with some followers, had fled into Nepal. Nana Sahib was supposed to be with them. Lord Clyde was on his way to Lucknow. All the forts had been destroyed, and 400,000 stand of arms surrendered. The Murro tribes were causing trouble on the Scinde frontier. Tantis Topce had been several times defeated with much slaughter, but is still at large. Another column of rebels had been defeated with a loss of 300. Advice from Jaunpur report severe engagements between Sir Colin Campbell and 8,000 Rossillas. Sir Hugh Rose was marching to his support.

## Scientific Intelligence.

*Agricultural Patents for the Week ending February 22, 1859.*—W. C. Darvol, of Fall River, Mass. A vegetable cutter, and the arrangement of the parts.

John M. Hall, Warren, Ga. Improvement in the arrangement of the different parts of the plow.

John S. Hall, Manchester, Pa. Plow beams of an inverted U shape of iron or steel, with arrangement for convenient connections.

W. O. Hickok, of Harrisburgh, Pa., a machine for cutting straw or hay.

N. E. Hinds, of Cooperstown, N. Y. The curved or semi circular form of the heel calks of horse or ox shoes.

Moses G. Hubbard, of Penn Yan, N. Y. A special combination in the arrangement of the cutter bar of harvesters.

Henry Montgomery, Silver Creek, N. Y. An improvement in grain separators.

Walter A. Wood, Hoodsick Falls, N. Y. Improvement in harvesters and also in mowing machines.

Wm. Hinds, Little Falls, N. Y. Arrangement of cutters in straw cutters.

*Giant Telescope.*—The greatest telescope yet projected is now in course of construction at Liverpool, Eng., for Mr. Lassell. The astronomical world are looking for the completion of this instrument with the greatest interest.

A French engineer proposes to convert portions of the African desert into blocks for the construction of a tunnel, by fission. The heat to be procured from the sun by means of Archimedian Mirrors. The tunnel is to form the protecting channel for a railroad from the sand storms and simoons to which that part of the continent is liable.

Jarves Case of Bloomington, Ill., has invented a mole plow that works well on prairie and meadow lands.

A steam plow has been invented by a citizen of Minnesota. The boiler is made so that the water is always kept at a certain level, the machine being suspended on axles, so that it can be used on side hills.

The catalogue of the Buffalo Agricultural Machine Works has been received, containing descriptions of Kirby's American and Little Buffalo Harvesters.

At a trial of belting leather against India rubber, it was found that a leather belt on a smooth iron pulley slipped at 48 pounds weight, and a rubber belt of the same size, slipped at 90 pounds. Leather on a pulley covered with rubber at 128 pounds, and rubber on a pulley of the same kind slipped only at 128 pounds. The trial was made with three inch belting.

Professor Mitchell has been appointed the director at the Dudley Observatory. This appointment, we believe has quelled the feeling of the disputants in that case and the announcement is received with satisfaction everywhere.

## General News.

A gold mine has been discovered in Allen county, Kentucky. Specimens have been taken from the locality which are very pure, and rich.

Professor W. W. Mather, a well known western geologist, recently died at Columbus, O. He was one of the geologists to survey New York, and the volume he produced is one of the most important in the Natural History of that State.

A gentleman of foreign birth, but a citizen of the United States, has made Geo. D. Prentice of the Louisville *Journal*, a present of a magnificent gold medal weighing half a pound, and beautifully designed and inscribed, as a token of his approbation of the editor's independent course.

A young man by the name of Leonard McKinney has been arrested at Eaton Rapids and brought to Detroit, on a charge of robbing the mail. The charge has not been as yet proved.

The crop of sugar at Havana is reported to be as good as that of last year.

Another fight transpired in Washington between two parties named Lander and Magraw, one the present Superintendent of the Central Wagon Road to Utah, and the other the late Superintendent.

A sad affair has transpired in Kentucky, in which a quarrel between two persons named Maxwell and Lerve, was made the occasion of a general shooting affray, in which one man was killed, and several wounded. Afterwards a mob broke into the jail where one of the principals, Lerve, was confined, and shot him.

Charles Sampson of the publishing house of Phillips and Sampson, Boston, died last week.

The remains of L. J. Thurston, the lost aeronaut were found, Sunday last, about ten miles northwest of Toledo. The remains were taken to Adrian, where they were fully identified.

Mr. Corey McFarland, of Chicopee, Mass., who is employed by the London Arms Company to establish in their works the American system of making small arms has returned to England, with another large lot of machinery made by the Ames Company at Chicopee, and also with several Springfield citizens for foremen in the different departments of the armory. This is certainly a high compliment to American mechanics.

A Journal devoted to American interests is to be started in Paris. We have no doubt it will be shut up in less than twelve months. Napoleon won't stand American notions of liberty of speech.

The arrival of Smith O'Brien at New York, has been something of an event. He declined all public receptions. A large number of his countrymen waited upon and welcomed him however, and the meeting between him and Thomas F. Meagher was very interesting.

A young lady only ten years of age, named Abigail Emeline Atwood, is announced as a musical prodigy, living at Watertown, New York. She plays readily on a number of instruments, although as yet she has had no instruction.

A steamboat named the Princess, blew up on the Mississippi river, near Baton Rouge, and out of four hundred persons on board, two hundred are said to be missing. There were a large number of ladies on board.—The passengers were mostly Southerners.

A French newspaper is to be published in New York, which will assume to be the organ of the Emperor. It is to be called *L'Empire Francais*.

Mrs. Hartmann, the woman convicted of poisoning her husband at Troy, N. Y., has been sentenced to be executed.

The Sickles case absorbs much of the public attention. The details are such as to excite him in a great degree for the terrible crime of which he is guilty.

John Percy, a lawyer of Albany, recently instituted suits to the amount of over a million of dollars against the Albany *Evening Journal* for libel. The cases ended in Percy's having to pay the costs.

Served him right. If they could have made him pay his own claimed damages, there would have been justice done.

A man named Skillings died in New York last week, who weighed six hundred and seventy-eight pounds.

Tennis Van Vechten, an old and much esteemed resident of Albany, N. Y., died on the 3d ultimo. He had been twice Mayor of the city.

New gold diggings have been discovered near the head waters of the Columbia and Missouri rivers at Stevens Pass on the route to Oregon. Major Culbertson brought with him 1800 dollars worth of it, in lumps the size of a grain of corn. The gold is said to be rather inferior in quality, but its abundance is great enough to make up for the depreciated value.

Business at all the workshops in Detroit is reviving, nearly all the foundries and machine shops are in full blast, and the Railroads are driving forward the construction of new cars and engines. A full crop of hands are now employed working on full time. This is cheering news so early in the season.

Gen. Houston retired from the Senate on the fourth of March. He informs his friends that he is about to devote the remainder of his life to agriculture, and to writing his autobiography.

The Hon. A. B. Stevens, of Georgia, declines a re-nomination for Congress. He has been a member of the House of Representatives for many years.



## The Household.

"She looketh well to the ways of her household, and eateth not the bread of idleness."—PROVERBS.

EDITED BY MRS. L. B. ADAMS.

## THE PICTURE BRIDE.

BY MRS. L. B. ADAMS.

One day a lonely artist spread  
His canvass by his cottage door:  
"I'll paint me such a bride," he said,  
"As never mortal had before."

"All artless in her matchless charms,  
Her face her guileless love shall speak;  
No pride shall fill me with alarms,  
No anger flush her maiden cheek."

"Pure as the snow-flake in the air  
Her intellectual brow shall be;  
In ringlets bright her auburn hair  
Shall wave o'er neck and bosom free."

"And heaven's own purest blue shall bless  
The depths of those soft-beaming eyes,  
Where all of woman's tenderness  
In half unconscious slumber lies."

"Bright as the blush of early morn  
The rose-tints o'er her cheek shall play;  
But not like morning's blush be born,  
To fade with each departing day."

"Long as I live my picture bride  
Shall stand beside my cottage door,  
A purer, truer, more beloved  
Than ever mortal had before."

"Forever on her lips shall be  
That smile of angel loveliness,  
That speaks to me and only me,  
A welcome to her loved caress."

And day by day the Picture Bride  
In all her blooming beauty stood,  
The idol of the artist's pride,  
Beside his cottage in the wood.

When morning opened her dewy eye,  
He knelt in worship half divine,  
And when the noonday sun was high,  
Again he bent before the shrine.

And when his weary toils were o'er,  
And night o'erspread the landscape sweet,  
He sought his beautiful bride once more,  
To pay his homage at her feet.

Full oft those glowing lips he pressed,  
Bright lips, that only met his own,  
Full oft those dewy eyes he blessed,  
That beamed on him and him alone.

And when he slept and when he dreamed,  
One form in all his visions rose,  
And still her angel beauty seemed  
The guardian of his sweet repose.

Thus calm and blissful, months and years  
Rolled onward in their circles true,  
Nor dream of death, nor jealous fears  
Could mar the joy the artist knew.

But once, alas! in careless haste,  
Such as is sometimes known to all,  
His hand reversed his bride's sweet face,  
And left her smiling on the wall.

When to his bower at evening dim,  
With glad but weary step he came,  
No pictured beauty smiled on him,  
From out her silver-tinted frame.

But cold and dark the dwelling seemed,  
No lips were there where beauty slept,  
No eyes where love and fondness gleamed—  
The artist sat him down and wept.

"Ah me; my weary life," he cried,  
"My all of joy on earth is o'er.  
My lost, my loved, but faithless bride,  
Thy smile will cheer my heart no more!"

Thou simple artist raise thy hand,  
And turn again that frame-work slight,  
So shall thy bride before thee stand,  
In all her changeless beauty bright.

"Tis thus that many a loving heart  
Hath turned its joy to bitterness,  
Thy own impatience points the dart,  
That wounds thee in thy deep distress.

If e'er thou'rt shrined in woman's heart,  
The idol of her holiest care,  
O! tremble lest thou break the spell  
That keeps thy worshipped image there.

But should'st thou in a thoughtless hour,  
Unconscious cause the loved one pain,  
Remember 'tis the self same power,  
Can win her back to smiles again.

## Keeping the Track.

"To-morrow will be Saturday, and I shall be very busy," said Mrs. N., "but I shall be so glad to have you stay and spend the Sabbath with us if you can excuse a little neglect to-morrow. You know farmer's wives have a certain amount of work to do, and unless every department is kept up, there is a running behind hand directly, and it may take days of bustle and hurry to get all on the smooth forward track again. I believe in making a homely practical application of the injunction of the Apostle; 'Let all things be done decently and in order,' and if the order is not kept up—"

"Why, then you find that keeping house is very much like an engineer trying to go ahead with a train of cars when every other one is off the track," said Mr. N., who just came in.

"Exactly so," said his wife; "and though it requires a constant lookout and a steady, unslacked hand to keep the track with such an eccentric train as mine, yet it is safer and better for all on board, freight as well as passengers, besides keeping the conductor in good humor. He, you know, walks backward and forward overseeing all, and now and then ringing the alarm if he happens to discover anything going wrong, but woe to the engineer, and all else, if an obstruction is permitted to throw the train from the track."

We protested against being regarded as an obstruction to the Saturday express train, and begged the privilege of a place beside the engineer, so that we might see the working of the machinery under her management.

"All aboard at 5 A. M.," said Mrs. N., laughingly, as she bade us good night at the door of the pleasant little room we were to occupy.

At break of day we were all in motion.—Mrs. N.—and her eldest daughter, aged fourteen, were busy with the breakfast preparations around the stove, little Annie was on the platform by the pump at the kitchen door mixing feed for the poultry, Mr. N.—and one of his boys were attending to the cattle and sheep and pigs, while the second son, eleven years old, and a hired boy of sixteen, were in the garden, gathering up the pea bushes, bean poles and tomato frames, and stacking them against the fence behind the tool house, so that they might be safe till wanted again.

We went with Annie to the poultry yard. No chickens, pigs or turkeys were ever seen scratching and rooting about Mrs. N.—'s door, flying through her kitchen windows, roosting on the porch, or upsetting the swill tub on the door-step. On Mr. N.—'s farm each class of animals has a home of its own, and none are allowed to interfere with the rights and privileges of others. The poultry yard is large enough to give its inmates ample room to exercise their rambling propensities, and the provisions for their comfort and for all their wants, seem to be quite satisfactory, judging by the appearance of the fowls, and their wonderful performances in laying and setting as related by the enthusiastic little Annie. The geese and ducks had the run of a small pasture bordering on the creek which ran along under the bank beyond the poultry yard, and then made a half-moon bend around a few acres of rich bottom land. The pigs, too, had a range of their own, with the chance of getting at the creek, or into it, at their pleasure, and also comfortable little houses with straw beds made to their own liking.—The cattle and sheep were around the barn on the other side of the road, but we did not go to see them, as, by the time we had gone the round of the poultry, the pigs and the garden, breakfast was announced, and all hands gathered about the table with cheerful faces and good appetites.

After breakfast, Mr. N.—, like a model husband, took the milk pails and went to the barn-yard. The boys had their appointed tasks in the garden and the fields, the girls removed the dishes to the kitchen sink for washing, while Mrs. N.—, descended into the cellar, whither, by permission, we followed.—Here were two large rooms, lighted and ventilated by a number of grated windows. In one room were long rows of shelves filled with pans of milk, while crocks and firkins of butter, laid down for the winter market, stood along the wall, each labelled with the number of pounds and time of making. In the other room were bins for vegetables, meat barrels, pickle tubs, cider barrels, &c. On a frame, in the first room stood the churn, prepared the night before for the morning's exercise. After standing beside it and turning the crank a few moments, Mrs. N.— raised the cover and displayed a quantity of golden colored butter which was soon lifted into a tray, worked, salted and packed into a stone pot which was then in process of being filled. Then some eight or ten pans of milk were skimmed, and the cream set aside for Monday's churning. Meantime Mr. N.— came in with two brimming pails from the cow-yard, and he had the good nature, without being asked, to go up stairs for the pans into which the milk was to be strained. Then, observing that, as the "train was well under way, well provided with fuel, water, &c., he would look about among the passengers, and see us again at the dinner station," he went out, and we saw no more of him till noon.

By nine o'clock all the morning's work was done in Mrs. N.—'s kitchen, except the baking, and the large white loaves for that were already set to rise, and would be in the oven and out of it again before twelve. Ellen and Annie washed the dishes, cleaned the floor, prepared the vegetables for dinner, and then went up stairs to regulate the beds, arrange the chambers, and pay some little attention to their own toilet before dinner. The mother attended to the churning, mixing the bread, scalding the pans, and various other things in and about the kitchen, and by ten o'clock her own room was put in order, and she, in a clean dress, and with her work-basket beside her, sat down to sew and visit till it was time to prepare the dinner for the table.

After dinner the dishes were quietly and quickly disposed of by the sisters, and then we took a long walk with them along the banks of the creek, leaving Mrs. N.— busy

selecting and laying out Sunday clothes for the family, and whatever else her thoughtfulness might suggest as necessary or expedient to be done in anticipation of the day of rest.

Tea was ready at five, and at six Mr. N.— brought in his brimming milk pails again; then, mounting one of his horses, he went to the Post Office, a mile distant, from which he returned in less than an hour with a few letters and a good supply of magazines and newspapers, among which, of course, was the MICHIGAN FARMER.

On the Sabbath we all went to church, three miles distant, in the family carriage, drawn by a pair of splendid horses, which, a month or two afterwards, took the first prize in their class at the State Fair.

Mrs. N.—, with her method of housekeeping, does more work in one day, than Mrs. M.—, of whom we spoke last week, can get through with in six, and for this reason, that everything is done with promptness and in order, so that there is no half doing, and dragging of one day's work into another. And this energy of the mother is communicated to the children. Ellen and Annie never think of complaining of the amount of work they have to do, from the fact that they do it quickly and well, and thus gain all the time they need for sewing, reading or recreation of any kind. Their mother loses no time running after them to "put things to rights," and we noticed, too, that the boys had a wonderful faculty of waiting on themselves instead of calling on "mother" for everything; this saved a world of trouble to her, and teaches the boys the important lesson of self-dependence.

Both Mr. and Mrs. N.— manage to have some leisure for reading and for social enjoyment with their neighbors, and we presume the idea has never entered their minds that they are "nobodies" and not "living like folks" though they are backwoods farmers.—They are well enough acquainted with what is going on in other parts of the world, to make them contented with their own lot, and always particularly well informed as to the state of the markets which enables them to take advantage of times and get the best prices for whatever they have to sell. They have a large and excellent vegetable garden, which is altogether under the charge and direction of Mrs. N.—, and she and the children have the benefit of whatever sales are made from it, which very often amounts to quite a handsome little sum in the course of the year. The front yard is beautifully shaded and ornamented with trees, shrubs and flowers, and climbing roses and other blooming vines are twined around the pillars of the porch. The yard around the back kitchen door is a smooth clean grass plat, where pans or other utensils from the kitchen may be set out in the sun at any time without danger of being disturbed by pigs or chickens. There is an air of neatness, comfort and security everywhere around the house, and within it.

Mr. and Mrs. N.— seem to have started with their domestic train fairly and squarely on the track, and, as both are united in their efforts to keep it there, it is not strange that they run so smoothly and happily on the high road to success; while poor Mr. and Mrs. M.—, with theirs all out of gear, some off and some on, the water out at one time, the fire low at another, and neither seeming to care which way they are headed, are forever jolting over obstacles, falling down embankments, dragging through sloughs and swamps, and always on the downward grade.

## "Only A Poor Child."

"O, how very tired I am. I do wish I might sit down and rest the balance of the evening, but no, I must finish up the dishes and then scrub the kitchen and prepare the breakfast, so that when I do get to bed I am so tired that I cannot rest."

Yes, little one, you must be very weary indeed; for I've watched you all day long, working away in that great kitchen. But you're only a poor child, whose father drinks and cannot afford to keep his little girl at home. Mrs. Savemoney was very kind in giving you a home, and though you are but ten years old, and Mrs. S. has quite a large family, you should be willing to help her do the work, and ought to be thankful that you have a bed to sleep on at night, and a roof to shelter you from the storm. Besides being away from the evil influences of your home, you have your living; and then kind Mrs. S. makes over for you all her old dresses, when she has done with them, so liberal to give you what she cannot use herself. Think how hard Mrs. S. has to work, and how much it costs her to keep such a little girl as you, who can do scarcely anything at all towards paying for the trouble and expense of your keeping. And then Mrs. S. is a member of the church, and though she don't tell you

about God and Heaven now, she will by-and-by. She will tell you about the Saviour and how he went about doing good, how he loved the poor because he himself was lowly, and what he said about doing unto others as you would that others should do unto you. And each Sabbath, as she sits in church, she will lean her head upon her jeweled hand and bless the kind Providence that sent her such a good little girl, and will breathe a prayer to heaven for the "little help" who stays at home to mind Nelly and get the dinner ready. Mrs. S. is a very good woman, for she does not forget the poor of other lands, but drops "something handsome" into the missionary box, to send the glad tidings of salvation to the poor heathen, far over the seas. Pray for your Mistress, little one, that she may always be able to provide for you so liberally, a poor, charity child as you are!

"Mother, I've left Mrs. Savemoney's,—Charley S. teases me so about my father that I cannot stay there any longer. Now that I have left her, she won't let me keep those pretty furs she gave me, and I shall catch cold without them; and she says I cannot have the basque she made me from her old black silk, though there is no one else who can wear it in her family."

Never mind, little one, you are only a poor child. Your father don't keep sober, like Nellie's Pa; what difference can it possibly make to Mrs. S., she thinks she has given you all that was your due,—perhaps she has. You should not cherish any hard feeling against Mrs. S., but remember that the Saviour bids you love even those that oppress you. It may seem very hard to love Mrs. S. after she has taken away your furs and basque, but then you are only a little girl and perhaps did not earn them. May God bless you, poor child, and guide you through life aright. And may Mrs. S. remember that an all wise being has yet to sit in judgment on her actions, and let her be very careful how she wounds even a little child, lest it be said to her "inasmuch as ye did it not unto one of the least of these my children, ye did it not unto me."

AUNT PERCY.

## Washing and Ironing.

To be able to wash and iron neatly is a valuable accomplishment to anybody; and, when properly conducted, is conducive to health. I have often observed ladies who exposed themselves to colds on washing day, and I trust a few hints may do some good.

When more than one person assists in washing, one should do the heating or sweating part, and the other get the water, empty suds, hang out the clothes, &c. When there is no one to assist, the water, soap, and wash-utensils should be first collected, and a bonnet put on, and something thrown over the arms and shoulders, before emptying suds.—It is well to wear a light bonnet through the whole process. No cold water should be used in washing, as fatal colds are often taken in this way. The rinsing water, and all should be warmed, even in summer. In cold weather, the clothes should be hung out by some other person than the washer. So many muscles are called into active exercise in washing, that a person is much more liable to take cold, by any exposure to cold air, or by the use of cold water, than at other times.

Laces, muslins, and other fine fabrics, should be rubbed with the hands, and not on the board, as it greatly injures them. Calicoes, ginghams, &c., will not be as liable to fade, if washed on the wrong side. For calicoes, the rinsing water should be quite salt, also the starch, from which they should be wrung dry, and hung in the shade. Heat often fades calicoes more than washing. Calicoes may be stiffened in starch, made in the following manner: To every quart of starch wanted, take one tablespoonful of fine wheat flour, wet with cold water, and mash all the lumps from the paste with a spoon, then pour on sufficient boiling water to make the required quantity, and stir with one hand. The water must be boiling when poured on to the paste, or it will not cook sufficiently. To every quart of starch, add one tablespoonful of salt, and a little clean lard, stir well until the lard is melted, then cover the starch so that no steam will rise while cooling. When the calicoes are rinsed, they may be dipped in this starch, wrung, and hung in the shade to dry.—Sprinkle and roll up a while before ironing. Iron on the right side with a clean hot iron.

Laces, muslins, shirts, bosoms, collars, &c., should be starched in a preparation, made in the following manner: To one pint of starch, take one spoonful of starch powder, wet with sufficient water to mash well with a spoon, then pour on boiling water with one hand, and stir with the other, until it appears to be of the required thickness for starching men's collars. If sufficiently cooked, (as it will be, if but a little cold water is used to dissolve

the powder, and the water added, was boiling when poured on,) add to it one salt spoonful of fine salt, one teaspoonful of dissolved gum arabic, then cover the dish, and set away to cool. The addition of salt prevents the iron from sticking. The gum arabic makes it glossy, and the covering it to cool prevents steam from rising. The gum arabic should be of the clear, light kind for this purpose, and may be kept ready for use, dissolved in warm water, and poured into a vial, stopped tight. Clear, light, cherry or plum tree gum, will answer as well, if more convenient to be obtained.

Shirt collars should be starched first, as they need to be quite stiff, then other things that require thick starch, &c. The collars, bosoms and wristbands being starched, fold them over the dry part, and roll up over night in summer, iron next day, or they may mildew. In winter hang on the clothes' frames to dry a little, then iron, and if any part becomes too dry, moisten with a clean, wet cloth before ironing. Iron all other parts of a shirt before ironing the starched parts.—

To iron the collars smooth, begin at the top, and iron down toward the binding. To iron the bosoms neatly, have a piece of smooth board, a little larger than the bosom, with three or four thicknesses of nice, white cloth sewed around it, to insert between the bosom and back of the shirt, to smooth the bosom on.

Iron ladies' collars, and all worked muslins, laces, &c., on the wrong side.—H., in Rural American.

## Household Varieties.

## THE ANGEL'S GIFT.

"I dreamed last night of a silver key  
Which a bright-winged angel gave to me,  
And vanish'd away like foam on the sea!"  
Said a child on New Year's morning.

"What it meant I cannot divine,  
But I saw the key of silver shine,  
And the dear good angel said it was mine,—  
Tell me, mother, its meaning?"

And as she looked at her mother's face,  
The mother silently prayed for grace,  
For she knew that an angel had chosen a place  
For her child in mansions eternal.

F.—In Boston Transcript.

A Youthful Elopement.—The Albany Statesman relates the following as an incident of the age, and effect of the recent development of romance in newspaper literature:

"A couple of families residing in this city have just had the peace and quiet of their home circles disturbed by a transaction which seems almost incredible. It is an elopement, and the parties are aged respectively fourteen and fifteen. The parties were attendants at a select school in a fashionable part of the city under a female teacher. Their attachment for each other was noticed by the rest of the scholars, and particularly by the school-mistress, who had time and again, spoken to the girl in relation to her folly, she being too young for such conduct, &c.; and also had more than once threatened to turn the boy out of school unless he put a stop to his proceedings. Yet all these remonstrances were of no avail. The young pair had evidently formed an attachment for each other that was not easily to be broken. Everything had been neglected for each other's society. The girl's parents became acquainted with the facts, and informed her, if she did not quit her foolish capers, they would be compelled to send her away. She informed her young lover of the same. Arrangements were effected, and both started off on the Central Railroad cars on Saturday. They went to Utica, where the boy had an uncle living, and stopped there, the boy representing the girl as his mother's sister's daughter.—They were entertained; but before daylight on Sunday morning, the household were disturbed from their slumbers by the ringing of the door-bell. The boy had stolen \$64 from his father and cleared. On discovering his loss, the father started in pursuit, and found him at Utica. But imagine his surprise when he found the daughter of his next-door neighbor in company with his boy. He labored under the impression that the boy had been playing a game on his own account, but it turned out to be a real elopement between the two. However, both were brought back to the city this morning, and lodged in their respective homes.—It is evident that each of these youths had been greatly given to romantic reading, as this transaction fully illustrates. On searching the boy for the money, the father found a paper containing arsenic, showing conclusively that, in case they were detected they premeditated suicide. The girl has been locked up in a room, and the boy has received a good cowhiding."

Decidedly Personal.—President Buchanan uses no tobacco; Gen. Cass drinks no "Bourbon"; Senator Douglass uses no pepper, and the Postmaster General eats but two meals a day. N. P. Willis cuts his own hair. Caleb Cushing shaves himself and wears no beard; Rufus Choate and Henry Ward Beecher are dear lovers of coffee.—E. P. Whipple rarely breakfasts before ten, though he begins business at eight. Edward Everett writes his extemporaneous addresses; Ralph Waldo Emerson often dines at Parker's, but rarely takes wine; Wm. Cullen Bryant finds inspiration in two or three cups of green tea, and Longfellow smokes a meerschaum. The smallest sized postman in America, is Holmes, the best looking one Fiske, (and he is as good as he looks), and the biggest one Pike of Kansas.—Gleaner's Line of Battle Ship.

A Very Interesting Fact.—The Washingtons and Bonapartes have united in the person of Madam Murat, who has been appointed vice-regent of the Mount Vernon Association in Florida. She is the grand-niece of Washington through the Lewises. By her marriage with Achille Murat she became the niece-in-law of Napoleon the First.

There is a lady so aristocratic that she refuses to take a newspaper because it is made of rags.



## FANNY'S BARN-YARD SONG.

Chick! chick! chick! oh, come along quick!  
From my little fingers a crumb you may pick.  
Quack! quack! quack! says the old white drake,  
And the ducks shake their tails with a short little shake.  
Quack! quack! quack! says the old one in black,  
And they split their throats, as they answer, quack!  
Cock-a-doodle-do! here's a health to you!  
And the rooster bows to the feathered crew.  
Cluck! cluck! cluck! I wish you much luck,  
Says a mother hen to a sitting duck.  
Pe! pe! pe! oh, pray wait for me!  
Says the turkey brood, as plain as can be.  
Gobble! gobble! gobble! my snout's in a hobble,  
Says the strutting cock, with an ugly bobble.  
Pot rack! pot rack! I'll quit such a pack,  
Sings the Guinea hen, as she flies the track.  
Taint never no use, screams a sensible goose,  
To mind the rude ways of fowls what is loose.  
Then hissing aloud to the wondering crowd,  
She waddles away, quite happy and proud.  
Now the peacock tries, with his hundred eyes,  
To astonish and awe; but the shanghaies rise  
And clearing their throats, flap their short-tailed coats,  
While they sweep the barn-yard of corn and oats.  
Then the Poland duck, with his comb in a tuck,  
Gives a foreign twist to his best tail curl;  
While a bantam swell goes on tip-toe a spell,  
To escort for a while a Cochon belle.  
Then they cackle and crow, hiss, gobble, and blow,  
And all speak at once, both high and low.  
Hush! hush! hush! cry the Muscovies, hush!  
We are whispering secrets as soft as a musk;  
Then bowing around, almost to the ground,  
They bobbing retire with a murmuring sound,  
And chick! chick! chick! oh, come along, quick,  
Brings order again, while a crumb they pick.  
—Saturday Evening Post.

## Organ Playing.

The Organ, long expected, has arrived, been unpacked, set up, and gloried over. The great players of the region round about, or of distant celebrity, have had the grand Organ Exhibition; and this magnificent instrument has been put through all its paces, in a manner which has surprised every one, and, if it had had a conscious existence, must have surprised the Organ itself most of all. It has piped, fluted, trumpeted, brayed, thundered; it has played so loud that everybody was deafened, and so soft that nobody could hear. The pedals played for thunder, the flutes languished and coquetted, and the swell died away in delicious suffocation, like one singing a sweet song under the bed clothes. Now it leads down a stupendous waltz with full bass, sounding very much as if, in summer, a thunder-storm should play above our heads "Come, haste to the wedding," or "Money-Musk." Then come marches, galops, and hornpipes. An organ playing hornpipes ought to have elephants for dancers.

At length a fugue is played to show the whole scope and power of the instrument. The theme, like a cautious rat, peeps out to see if the coast is clear; and after a few hesitations, comes forth and begins to frisk a little, and run up and down to see what it can find. It finds just what it did not want, a purring tenor lying in ambush and waiting for a spring, and as the theme comes incautiously near, the savage cat of a tenor pitches at it, misses its hold, and then takes after it with terrible earnestness. But it has miscalculated the agility of the theme. All that it could do, with the most desperate effort, was to keep the theme from running back into its hole again, and so they ran up and down, around and around, dodging, eluding, whipping in and out of every corner and nook, till the whole organ was aroused, and the bass began to take part, but unluckily slipped and rolled down stairs, and lay at the bottom raving and growling in the most awful manner, and nothing could appease it. Sometimes the theme was caught by one part, and dandled for a moment, when, with a snatch, another part took it and ran off exultant, until unawares the same trick was played on it, and finally, all the parts being greatly exercised in mind, began to chase each other promiscuously in and out, up and down, now separating and now rushing in full tilt together, until everything in the organ lost patience, and all the "stops" were drawn, and, in spite of all that the brave organist could do,—who flew about and bobbed up and down, feet, hands, head, and all—the tune broke up into a real row, and every part was clubbing every other one, until at length, patience being no longer a virtue, the organist with two or three terrific crashes put an end to the riot; and brought the great Organ back to silence!

Then came congratulations. The organist shook hands with the builder, and the builder shook hands with the organist and both of them shook hands with the committee: and the young men who thought it their duty to know something about music looked wise, and the young ladies looked wise too, and the minister looked silly, and the parishioners generally looked stupid, and all agreed that there never was such an organ—no, never! And the builder assured the committee that he had done a little more than the contract stipulated; for he was very anxious to have a good organ in that church! And the wise men of the committee talked significantly of what a treasure they had got. The sexton gave a second look at the furnace, lest the

church should take it into its head now, of all times, to burn up; and he gave the key an extra twist in the lock, lest some thief should run off with the organ.

And now, who shall play the organ? is the question. And in the end, who has not played it? First, perhaps, a lady who teaches music is exalted to the responsibility. Her taste is cultivated, her nerves are fine, her muscles feeble, her courage small, and her fear great. She touches the great organ as if she were a trembling worshipper, fearing to arouse some terrible deity. All the meek stops are used, but none of the terrible ones, and the great instrument is made to walk in velvet slippers every Sabbath, and after each stanza the organ humbly repeats the last strain in the tune. The instrument is quite subdued. It is the modern exemplification of Ariadne riding safely on a tamed leopard. But few women have strength for the mechanical labor. It ought not to be so. Women ought to have better health, more muscle, more power, and one of these days doubtless will have.

Next, an amateur player is procured, who was said to have exquisite taste and finished execution. A few pieces for the organ he knew by heart, a pretty way of varying a theme, a sentimental feeling, and reasonable correctness in accompaniment.

Next came an Organist, who believed that all this small playing, this petty sweetness was a disgrace to the powers of the instrument. He meant to lead forth the long pent-up force, and accordingly he took for his first theme, apparently, the Deluge, and the audience had it poured upon them in every conceivable form,—wind, rain, floods, thunder, lightning, with all the promiscuous stops, which are put in all large organs to produce a screeching brilliancy, full drawn, to signify universal misery and to produce it. That man gave the church their full money's worth. He flooded the house. The voices of the choir were like birds chirping in a thunder-storm. He had heard that the singing of a congregation should be borne up upon the music of the organ and as it were floated, and he seemed to be aiming, for the most part, to provide a full Atlantic ocean for the slender choir to make its stormy voyages upon.

A fortunate quarrel disposed of him, and the Organ went back to the tender performer. But before long a wonderful man was called, whose fame, as he related it, was excessive. He could do anything—play anything. If one style did not suit, just give him a hint, and he would take on another. He could give you opera, ecclesiastical music, the stately symphony of Beethoven, the brilliant fripperies of Verdi, the solemn and simple grandeur of Handel, or the last waltz, the most popular song, (suitably converted for the purpose)—anything, in short. The church must surely be hard to please, if he could not suit them. He opened his organ as a peddler opens his tin boxes, and displaying all its wares, says, now, what do you want? Here is a little of almost anything!

He took his turn. Then came a young man of a true and deep nature, to whom music was simply a symbol of something higher, a language which in itself is but little, but a glorious thing when laden with the sentiments and thoughts of a great heart. But he was not a Christian man, and the organ was not to him a Christian instrument, but simply a grand gothic instrument, to be studied, just as a Protestant would study a cathedral, in the mere spirit of architecture, and not at all in sympathy with its religious significance or uses. And before long he went abroad to perfect himself in his musical studies. But not till a most ludicrous event befell him. On a Christmas-day a great performance was to be given. The church was full. All were musically expectant. It had been given out that something might be expected. And surely something was had a little more than was expected. For, when every stop was drawn, the opening might be with a sublime choral effect, the down-pressing of his hands brought forth not only the full expected chord, but also a cat, that by some strange chance had got into the organ. She went up over the top as if gunpowder had helped her. Down she plunged into the choir, to the track around the front bulwark of the gallery, until opposite the pulpit, when she dashed down one of the supporting columns, made for the broad aisle when a little dog joined in the affray, and both went down toward the street door at an astonishing pace. Our organist, who, on the first appearance of this element in his piece, snatched back his hands, had forgotten to relax his muscles, and was to be seen following the cat with his eyes, with his head turned, while his astonished hands stood straight out before him rigid as marble!

But in all these vicissitudes, and in all this long series of players, good playing has been the accident, while the thing meant and attempted has been, in the main, a perversion of music, a breaking of the Sabbath-day, and a religious nuisance. The only alleviation in the case was, that the general ignorance of the proper function of church-music saved the Christian congregation from feeling what an outrage they had suffered. But, we must try this topic once more, before we can get it fairly finished.—HENRY WARD BEECHER.—N. Y. Independent

## Household Recipes.

## Premium Whitewash.

As it will soon be time to commence preparations for spring house cleaning we publish the following, which is used on the President's house, at Washington, and is said to be excellent:

"Take half a bushel of nice unslacked lime, slack it with boiling water, covering it during the process to keep in the steam. Strain the liquid through a fine sieve or strainer, and add to it a peck of salt, previously well dissolved in water; three pounds of ground rice, boiled to a thin paste, and stirred in boiling hot; half a pound of Spanish whiting, and a pound of clean glue, which has been previously dissolved by soaking it well; and then hanging over a slow fire, in a small kettle with a large one filled with water. Add five gallons of hot water to the mixture, stir it well, and let it stand a few days covered from the dirt. It should be put on right hot; for this purpose it can be kept in a kettle on a furnace. It is said that about a pint of this mixture will cover a square yard upon the outside of a house, if properly applied.—Brushes more or less small may be used, according to the neatness of the job required. It answers as well as oil or paint for wood or stone, and is cheaper. It retains its brilliancy for many years.—There is nothing of the kind that will compare with it, either for inside or outside walls. Coloring matter may be put in, and made of any shade you like. Spanish brown stirred in will make red pink, more or less deep according to the quantity. A delicate tinge of this is very pretty for inside walls. Finely pulverized common clay, well mixed with Spanish brown, makes a reddish stone color. Yellow ochre stirred in makes yellow wash, but chrome goes further and makes a color generally esteemed prettier. In all these cases the darkness of the shades of course is determined by the quantity of coloring used. It is difficult to make rules, because tastes are different; it would be best to try experiments on a shingle, and let it dry. We have been told that green must not be mixed with lime. The lime destroys the color, and the color has an effect on the whitewash, which makes it crack and peel. When walls have been badly smoked, and you wish to have them a clean white, it is well to squeeze indigo plentifully through a bag into the water you use, before it is stirred in the mixture. If a larger quantity than five gallons be wanted, the same proportions should be observed."

## Cooking Meat.

Stewing consists in subjecting meat for a considerable time to a moderate heat in a small quantity of water. No good stew for an early dinner can be made the day it is wanted. The plan recommended is, to cut the meat in pieces of the required size, pack them closely together, covering them with cold water, or what is preferable, with broth. Place the stew-pan where it will gradually warm, and keep it at a heat considerably short of boiling. The albumen is thus dissolved, and the fibres so far softened and separated that the toughest parts become tender and digestible. The stew should be put aside in another vessel until the next day, when the fat should be removed from the top, and vegetables and seasoning added; it may be thickened with meal or flour if required.

## For our Young Friends.

## Charade.

I am composed of six letters.  
My 2, 3, 4, 5, 6, is a shrub.  
My 2, 3, 4, 5, is a sensation, transpose, it is a version.  
My 1, 2, 3, 4, 5, is a chair.  
My 3, 4, 5, is what all do, transpose it is a beverage, transpose again it is the goddess of discord.  
My 6, 4, 5, is part of man's dress, erase the first a preposition appears, erase the final, an article remains.  
My whole is a case.

H. W. J.

**Miscellaneous Enigma.**  
I am composed of 17 letters.  
My 1, 6, 5, 9, is a coin.  
My 10, 6, 5, is an animal.  
My 2, 12, 16, is a number.  
My 1, 2, 3, 9, is a young animal.  
My 4, 7, 8, 11, 17, is a town in New York.  
My 12, 11, 9, 10, 18, 5, is a boy's name.  
My 1, 2, 14, 4, 17, is a pause.  
My whole was an officer in the Revolution.

A. H. B.

Answers to Geographical Enigmas in last number.—THE ALBION FEMALE COLLEGE AND WESLEYAN SEMINARY. BARON STEUBEN.

## GROVER &amp; BAKER'S CELEBRATED FAMILY SEWING MACHINES.

495 Broadway, New York.  
143 Jefferson Avenue, Detroit.  
58 West Fourth Street, Cincinnati.

## A NEW STYLE—PRICE \$50.

This machine sews from two spools, as purchased from the store, requiring no rewinding of thread; it Hems, Folds, Gathers and Stitches in a superior style, finishing each seam by its own operation, without recourse to the hand-needle, as is required by other machines. It will do better and cheaper sewing than a seamstress can, even if she works for one cent an hour. Send for a Circular.

## 50,000 PAPERS

## OF FLOWER SEEDS.

A very large assortment of Flower Seeds, annual and perennial, of the choicest varieties, put up in papers, with printed descriptions, for sale at five cents each, or at fifty cents per dozen papers. Catalogues furnished free. Orders, accompanied with the cash, for one dozen, or more papers selected by the purchaser will be forwarded by mail, postage prepaid, by

M. T. GARDNER & CO., Seedsmen,  
166 Woodward Avenue, Detroit.  
February 24, 1890.

## LAWTON BLACKBERRIES.

## PRICES REDUCED.

Lawton Blackberries warranted genuine, good plants \$10 per 100, \$90 per 1000, packed.  
Austrian Pine and Norway Spruce, 1 foot, Scotch Fir, 8 to 10 inches, all 1 year transplanted \$50 per 1000, \$140 for 1000.  
Hooker, Wilson's Albany and Peabody's seedling strawberries 50¢ per doz., \$2 per 100.  
Triumph de Gand, and Trollope Victoria 50¢ per doz \$2 per 100, all other leading sorts \$1 per 100.  
Cherries—Duke, Morello, Heart and Biggar 2 years from bud, extra fine, \$15 per 100.  
Dwarf Cherries, 1 year, fine, principally Dukes and Morellos \$15 per 100.  
Rebecca Grape Vines \$1.35 each.  
Delaware Grape Vines \$2.00 each.  
Houghton Gooseberries, strong plants, \$10 per 1000.  
Catawba Grape Vines, 1 year selected \$90 per 1000.  
Manetti Rose Stocks, strong, \$20 per 1000.  
Best No. 1 imported Pear stocks \$20 per 1000.  
All other nursery stock equally low.  
Send a stamp and get a catalogue.  
A. FAHNESTOCK & SONS.  
Toledo, Ohio.

## SEEDS! SEEDS!!

FIELD, GARDEN AND FLOWER SEEDS!!  
WE ARE now fully supplied with one of the largest and most complete stock of Garden, Flower and Field Seeds ever offered to the Western Public. Our stock has been made up with much care from the best seed gardens of America and Europe. A large share are home-grown seeds, being grown under our own inspection, and which we can recommend as true to name and of the best quality.

Among our assortment of Seeds may be found over 150 VARIETIES OF FLOWER SEEDS;  
300 do do GARDEN SEEDS;  
HUNGARIAN GRASS SEED;  
CHINESE SUGAR CANE AND IMPHIEE SEED, &c.  
From a long acquaintance with the trade, we feel confident no one can offer better inducements to those desiring seeds.

Those who design to emigrate to Kansas and Pike's Peak would do well to take with them a box of fresh Garden Seeds.

We also keep constantly on hand a full assortment of IMPLEMENTS AND MACHINES.

Suited to the Field, Garden, Orchard and Household.

We are fully prepared to supply the trade on the most liberal terms.

Full Catalogues furnished gratis on application; if by mail inclose a stamp. Address

H. D. EMERY & CO.,  
204 Lake Street, Chicago, Ill.

## NEW ROCHELLE BLACKBERRY.

As I have more of the plants of this famous fruit than I wish to plant out myself the coming Spring, I will sell a few hundred to those who want them, not to sell, but to supply their own tables with fruit, at the rate of one dollar a dozen. The plants will furnish a daily supply for the table for several weeks.

CHAS. BETTS,  
Burr Oak, Mich.

## FRUIT AND ORNAMENTAL TREES

## For Spring of 1890.

ELLWANGER & BARRY beg to leave to inform Planters, Nurserymen and Dealers in Trees, that they have still on hand to offer for SPRING PLANTING, a large stock of the following named articles of superior quality in all respects:

## Fruit Department.

STANDARD PEARS, on Pear Stock, 2 and 3 yrs. from bud.  
DWARF AND PYRAMID PEARS on Quince, 2 and 3 years from bud.  
DWARF AND PYRAMID APPLES on Paradise and Doucain, 1, 2 and 3 years from bud.  
STANDARD CHERRIES on Mazzard stocks, 2 years from bud.  
DWARF AND PYRAMID CHERRIES on Mahaleb stocks, 1 and 2 years from bud.  
APPLE QUINCES grafted, 2 and 3 years from graft.  
ENGLISH WALNUTS, Butternuts, Spanish Chestnuts, Filberts, &c.  
HARDY GRAPES, including Isabella, Catawba, Clinton, Concord, Diana, Rebecca, Monticola, and other new varieties.  
FOREIGN GRAPES, for Vinerias, all the most esteemed varieties, well ripened plants, in pots, 1, 2, and 3 years old from the eye.  
BLACKBERRIES, New Rochelle, or Lawton and Dorchester.  
GOOSEBERRIES, the American Seedling and large English varieties.  
STRAWBERRIES, upwards of 60 varieties, including all the best American and Foreign varieties.  
CURRANTS, Red Dutch, Victoria, White Grape, Black Naples, Black English, &c., &c.  
RASPBERRIES, Myatt's, Linneus, Victoria, Prince Albert, &c.  
ASPARAGUS, strong Roots.

## MAZZARD CHERRY Seedlings.

MAHALEB do do

## Ornamental Department.

DECIDUOUS STANDARD LAWN TREES.  
DECIDUOUS WEeping.  
Evergreen and Trees, embracing an immense stock of Norway Spruce, from 6 inches to 6 feet. Also, rare California Evergreens, &c. See special advertisement.  
FLOWERING SHRUBS, all the most desirable, a very large stock.  
CLIMBING SHRUBS of all sorts.  
ROSES—the largest stock in the country of all the best sorts, both on the Manetti stock and on their own roots. See Catalogue.  
HERBACEOUS PERENNIALS, a superb assortment of more than 10 varieties.  
DAHLIAS—Over 100 of the most beautiful varieties, including the latest novelties.  
PHLOXES, an unrivalled assortment, embracing all the choicest.  
DELTA SYCAMORES, the most charming hardy border plant in cultivation—over 10,000 plants.  
CHRYSAETHRUMS, both large and pom-pone varieties, the newest and best.  
CARNATIONS and PICOTEES, a fine collection.  
DELPHINIUM HENDRICKS—Magnificent and other beautiful sorts.  
DAHLIAS—Over 100 of the most desirable hardy border plants grown. See Descriptive Catalogue No. 3.

## Green-House and Bedding Plants.

All the most useful and popular plants such as Fuchsias, Geraniums, Heliotropes, Verbenas, Petunias, Lantanas, Veronicas, Hydrangeas, Bougainvilleas, Poinsettias, &c., &c., grown extensively and supplied in quantities, or by the dozen, assorted, at low rates. See Catalogue No. 3.

## Summer and Autumn Blooming Bulbs.

A superb collection of the new Gladstons, and Japan Lilies, besides Tuberoses, Tigrids, &c.  
We can say without boasting, that our present stock has never been surpassed in vigor, health, and beauty of growth, and we invite all parties interested to examine it and satisfy themselves.

Packing for distant parts executed in the most careful and skillful manner, and customers treated in all respects with fairness and liberality.

For full and detailed information respecting the stock, prices, terms, &c., we refer to the following catalogues which will be sent gratis, prepaid, to all who enclose one stamp for each:

- No. 1—Descriptive Catalogue of Fruits.
- No. 2—Descriptive Catalogue of Ornamental Trees, Shrubs, &c.
- No. 3—Descriptive Catalogue of Dahlias, Green-House and Bedding Plants, &c.
- No. 4—Wholesale Catalogue for Nurserymen, Dealers and others who purchase in large quantities.

ELLWANGER & BARRY,  
Mount Hope Nurseries, Rochester, N. Y.

## SEEDS! SEEDS! SEEDS!

THE Subscribers have on hand and for sale at wholesale and retail, a large and complete assortment of Garden, Flower and Field Seeds, obtained from the most reliable sources, both in this country and Europe. Of the growth of 1889, good and true to their marks.—Farmers, gardeners and others in want of Seeds of almost any kind, can obtain from us those that will give entire satisfaction.

Catalogues may be had on application at our store, 166 Woodward Avenue, or by mail.

M. T. GARDNER & CO., Seedsmen.

DETROIT, Feb. 24, 1890.

## LAWTON BLACKBERRIES FOR SALE

At the rate of \$2.00 per dozen, or \$10.00 per hundred by 7-3m

HUBBARD & DAVIS,  
Fort Street, Detroit.

MELONS. The famous JAPAN APPLE PIE

MELON seeds sent for thirty cents per dozen by W. H. GARDNER, Sublette, Lee Co., Ill.

## 3,000 VERBENAS!!!

THE following varieties, and many others not enumerated, can be supplied during the season, forming an unrivalled collection:—

- \*Charles Dickens, (Edmond's) Rosy lilac, dark centre, large eye.
- \*La Godollier, Soft rosy crimson, fine truss and form.
- \*Lady Palmerston, (Edmond's) Delicate pale blue, large white centre, large truss.
- \*King of Sardinia, (Edmond's) Deep crimson, dark centre, very large truss and flowers.
- \*Black Prince, Very dark purple, large and fine.
- \*Mrs. Woodruff, Splendid scarlet, rivaling defiance.
- \*Mrs. Holford, Large waxy, white truss, extra.
- \*Imperial, (Edmond's) (Pulchella Monetta), a distinct species, with elegant lacinated foliage; color, violet rose, with pure white flakes down each side of the petals.
- \*Brilliant de Vaise, Shaded crimson, large and fine.
- \*Madam Kien, Soft pink, slightly striped.
- \*Mrs. H. Williams, Very fine white.
- \*Chieftain, Dark purple, large truss, fine.
- \*Madame Viard, Light and dark pink, striped.
- \*Incomparable, Light and dark purple, striped.
- \*Striped Roly, Striped pink, very fine.
- \*Queen of Purple, Fine dark purple.
- \*Reine de Jour, White, large truss, excellent.
- \*Kirt's Defiance, Color light, pink centre, extra large bloom and truss.
- \*Anacron, Very fine scarlet, distinct variety.
- \*Robinson's Defiance, Brilliant scarlet.

The above twenty varieties form a very choice selection, price 12½ cents, for strong plants in Pots. For an assortment, \$1.25 per doz.; or upon the receipt of \$2, four more varieties will be added, our selection, making twenty-four varieties equal to any in cultivation.

They will be packed in moss, each plant distinctly labeled, (without the pots) and delivered, at the Express Office or R. R. Depots in Detroit, at the same price, or sent by mail free of postage for \$1.50 per doz.

Those marked thus \* supplied at \$5. per hundred.

All orders should contain a remittance.

Also the following varieties, will be added to the above list after April 15th, at 15 cts. each plant: Celestial, Attraction, Madam Abt, Giant of Battles, Madam Plantamour, Prince of Wales, Dread, Tranby, Wonderful, Victoria, Rosy Gem, La Stella, Sarah.

The best old varieties supplied at 10 cts. each, \$1. per doz.; \$5. per hundred.

A choice collection of Dahlias, among them first prize Dahlias from the State Fair in October last, in Detroit, which will be ready to send out in April and May, price 25 cts. each; \$2 per doz.; \$12.50 per hundred. Wilson's Albany Seedling and Hooker's Seedling Strawberry, Concord, Delaware, Diana, Logan, and Rebecca Grape vines.

## FRUIT, AND ORNAMENTAL DECIDUOUS TREES.

10,000 Norway Spruce and a large assortment of all the hardy varieties of Evergreens, 50 choice varieties of hardy ever blooming roses.

Greenhouse Plants.—Bulbous roots, bedding plants, celery, Tomato, and cabbage plants in the proper season.

For sale at reduced prices, all orders promptly executed, and articles packed to bear transportation any distance.

HUBBARD & DAVIS,  
Address: Box 266, P. O., Detroit, Mich.

## TREES FOR SHELTER

## ON THE PRAIRIES.

WE solicit the attention of Orchardists, Nurserymen and Farmers in the Prairie regions of the West to our immense stock of

## NORWAY SPRUCE.

The most hardy, rapid growing and beautiful Evergreen tree and the best adapted for forming belts and screens for the protection of gardens, orchards and dwellings in all exposed situations.

Our stock embraces all sizes from one to six feet in height, frequently transplanted and fitted for sale removal.

Priced lists for next spring furnished on application and the following catalogues are sent gratis, prepaid, to all who apply and enclose one stamp for each.

No. 1.—Descriptive Catalogue of Fruits.

No. 2.—Descriptive Catalogue of Ornamental Trees and Shrubs.

No. 3.—Descriptive Catalogue of Greenhouse and bedding out plants.

No. 4.—Wholesale or Trade List.

ELLWANGER & BARRY,  
Mt. Hope Nurseries, Rochester, N. Y.

## THE SYRACUSE NURSERIES

## OFFER FOR SALE FOR THE SPRING OF 1890.

## OF FRUIT TREES.

Apples—5 years old; a very general assortment.

4 years old; a limited assortment of early and late varieties.

2 years old; Dwarf, very fine.

Pears—1 and 2 years old; Dwarf and Standard, so extensive in variety as to enable us to fill almost any order.

Cherry—1 and 2 years old; Dwarf and Standard, beautiful Trees.

Peach, Apricot, Plum and Nectarine—Best varieties.

Currents—White and Red Dutch, Victoria and twelve newer varieties.

Gooseberries—Houghton's Seedling, a good stock, and some of the best English sorts.

Blackberries—Lawton, or New Rochelle, and Dorchester.

Raspberries and Strawberries—Assortment especially large and desirable, of all the best old and new kinds.

Grapes—An immense stock of Isabella, Catawba and Clinton, 1 and 2 years old, exceedingly strong and well rooted; also, very fine plants of the Concord, Delaware, Hartford, Proffitt, Northern Muscadine, and Union Village; besides a superior collection of Foreign Grapes, in pots.

Evergreens—European Silver Fir; American and Norway Spruce; American Arborvitae; Balm of Gilead; Hemlock; Austrian, Corsican and Scotch Pines.

Deciduous—American and European Mountain Ash; Weeping Ash; American Elms; Weeping Elm; English Weeping Elm; (very graceful); Horse Chestnut; Catalpa; European Larch; Silver and Sugar Maples; Linden; Tulip Tree, Nursery grown and very fine; Walnut; and Weeping Willow.

Shrubs—Altheas; Fringe; Magnolias and other beautiful varieties.

Double Flowering Almond, Cherry and Peach; Honeysuckles; Lilacs; Snowballs; Sweet Briar; Spiraea; Double Flowering Thorn, White and Rose colored, &c.

One of the best and latest collections in America; best plants of the Augustas at \$1.

Dahlias, Peonies, Border Plants, Bulbous Roots, &c., in great variety.

## OF MISCELLANEOUS ARTICLES.

Rhubarb—Cahoon's, Giant, Victoria and Linneus.

Asparagus—Very strong, 1 year old roots.

Hedge Plants—Orange, Orange; Honey Locust, Privet, 1 and 2 years; Red and White Cedar.

## FOR NURSERYMEN.

500,000 Apple Grafts, worked on strong roots, at \$5.

50,000 Manetti Rose stocks, very fine, " 15

50,000 Mazzard, Cherry do do " 15

200,000 Apple Seedlings, 1 year, do do " 4



# MICHIGAN FARMER.

R. F. JOHNSTONE, EDITOR.  
Publication Office, 130 Jefferson Avenue.  
DETROIT, MICHIGAN.

## THE MARKETS.

### Flour and Meal.

The week past has presented in this market few transactions of any moment. Flour continues to sell steadily at the rate quoted last week, there being no change of importance. We note that for the past three or four days, the tendency in the New York market has been rather downward, and that rates on flour are quoted from 5 to 10 cents lower on all the grades.

The foreign market reports nothing of any encouraging nature. Fluctuations occur and are reported, but the home supply of grain is large, compared with that of last year for the same time. As showing the state of the supply in England, the official Gazette reports that in the 290 towns named in the law as those in which a record of the amount and prices shall be kept as the basis of a weekly average, there was for the week ending February 18, 1899, 129,108 quarters sold at an average price of 40s 11d., while during the same week in 1898, there were but 91,399 quarters sold at an average of 47s 9d. Thus exhibiting the fact that the supply was larger and the price was consequently depreciated. Again so large an amount selling at this season at so low rates is an evidence of the large store of wheat on hand, and therefore affords little hope of a revival of the import trade in that country. France, war or no war, has an abundance, and the countries in which war would be carried on would have no money to buy our produce, for the great mass of the people never know what it is to live on foreign grain.

Edward Bill in his latest circular remarks relative to the New York market for Breadstuffs:

The firmness among holders of Flour and Wheat, which has existed all the winter, still continues, being increased by the light stocks and high prices throughout the country, and the strong probability of very moderate supplies, on the opening of Spring navigation. The business is confined to the wants of the home trade, and the inferior and common grades of Flour have been depressed, whilst the better kinds have improved. Ohio brands in round hoop barrels continue to be the favorites for speculative account, and have advanced about 25c per bbl. Canadian and Southern are also held at higher rates.

In Wheat no important changes have taken place; the city and local millers purchase freely. The better descriptions are comparatively scarce, and held generally for even higher than present prices, but the common qualities are irregular in value and offered more freely. Bye is quiet. Barley and Oats are without change. For Corn the demand is good and prices rather better.

At Chicago we note there has been few sales, but holders of produce seem to be firm, on account of light supplies.

In this market, good brands of flour retail at \$6.50, and family flour sells at \$7.00 from the mills.

Wheat comes in very slowly and in small parcels. Some lots have sold at \$1.25, and others at \$1.45.

Corn is coming in rather more freely, and there is a fair supply on hand. Country lots from wagons bring from 77 to 78 cents, but lots have been sold in bags for the Canada trade at 80 cents.

Oats remain scarce, and bring readily from 56 to 60c, if the quality is good.

Barley of good quality is but seldom put in the market, and prices remain steady as quoted last week, \$1.80 per 100 pounds is the highest rate paid, but much of what is offered here is not worth over \$1.60.

**Live Stock, &c.**

The live stock market continues somewhat dull and prices not so good. We note the purchase by W. Smith of 12 head of good cattle, 4 of which were from John Waterman at 4 cents, and the other 8 from Mr. Wilkins of Wayne at 83c. There is much less beef offered in the street now, but as the quality sold there is not first rate, it does not bring over 44c per side, some very good sides will bring at 5 cents. There have been few sheep offered, as they are not very plenty except at high rates. Those who have wintered sheep over, and have them now in good condition, are not caring to sell, as they will bring enough to pay for keeping in the extra amount received. Smith, however, bought 40 head of grade merinos at \$4.25.

Good hogs are scarce and high, there being none offering. A choice hog at the present time will bring \$7.50 per 100 lbs, but this is the highest rate.

There are some calves beginning to be offered for sale, at various prices from \$2.50 to \$4.00.

In the New York Tribune's report of the cattle market at Albany, N. Y., we find the following:

Nelson Shale sold 28 Michigan good ones at \$63.00 per head, would average 1,800 lbs. each, for 54c; among this lot was one pair of Oxen, fed by E. H. Spaulding of Downagie, Mich., which weighed at home 4,156 lbs. David Fowler sold 16 State at \$58.00 per head. A Marshall sold to A. N. Monroe of Brighton 19 State at \$47.00 per head, or say 45c per lb. F. Lawton sold 18 State, averaging 1,500 lbs. each, at 54c. A. C. Marsh sold 17 State weighing 1,500 lbs. each, at 54c. Vallet & Shott sold 36 State, ranging from 1,100 to 1,500 lbs. at 44c to 45c. Evans & Parker sold 68 Indiana at 44c to 45c. C. Snowden sold 80 from his distillery here at 10c per lb. for the beef, sellers' estimate.

The New York report of last Wednesday's market is as follows:

Cattle market—1st quality beefs active at better prices, but common sort dull and unchanged; quotations—inferior 75c; best 10c to 12c; premium 12c to 14c; average 9c. Sheep and lambs scarce, and market active and higher; receipts 4,000. Swine market overstocked with poor, unmarketable hogs, which sell at very low prices; receipts 12,000; very heavy corn-fed in request at 6c to 6 1/2c; distillery feed 6c.

**Wool.**

There is little to be said relative to the wool market at present East or West. It is generally conceded that the auction sale at Boston did not result in as high prices as it was thought would be obtained, and we note that some jobbers seem to insinuate that the whole affair was got up for the occasion, or at least was made the occasion of showing that wool was not worth what it has been held at, and that there is a reaction coming which will affect the prices about shearing time. We confess to a belief that the sale was a bona fide one, and that its effect on the market will not amount to more than a damp of printer's ink after a few weeks. Manufacturers, whose demands govern the market will ascertain pretty certainly what can be done with the incoming clip, and if they can make money by working it up, they will buy it if it is to be had at prices that will repay them. That all the fine wools will be needed there can be no doubt.

There has been sold during the week, in this market about 22,000 pounds of wool, mostly pulled. About 11,000 pounds of this came from Ann Arbor. The remainder, partly pulled, and partly fleece, came from other points. The rates given were from 85 cents for No. 1 to 45c for the very best and finest parcels.

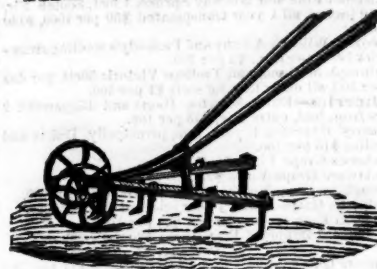
Clover seed has dropped considerably, most of those who bought on the strength of speculation for the purpose of selling in the Ohio and Pennsylvania markets, have been disappointed in the demand, and have lost—\$5.00 to 6.00 per bushel is all that can be got, and the market very dull. We notice that in the N. Y. market clover seed is quoted as in good demand at 10 to 10 1/2c per lb. This would be equal to \$6.00 to \$6.50 per bush.

Apples are not plenty as every one knows, but good kept winter sorts will readily command \$5.00 per bbl., and those who were fortunate with their orchard last fall, will now find themselves with "something to sell."

Potatoes are offering in large quantities, and are not quite so firm in price, the range being at 6c for the common sorts, and the very choicest are sold for 66 and 67 cents.

Beans both at Chicago and here are dull of sale. The demand created by western buyers has subsided, and \$1. per bushel is all that can be obtained on the street.

## THE IMPLEMENT FOR GARDENS. THE HAND SCARIFIER.



PRICE \$3.50.

WE offer for sale the Hand Scarifier, the most desirable and useful implement for gardens, of any that has been invented, and the most perfect labor saver.

Read the testimony of those who have tried it last season:

ROCHESTER, OAKLAND, CO., MICH., FEB. 1899.

MESSRS. BLOSS & ADAMS:

You cannot recommend too highly your Hand Scarifier. It is an invaluable machine for cultivating all root crops sown in drills. It works for all root crops sown in drills it is invaluable. One man with this machine can do more work in one day than five men can with hoes, and it does it better. We have used it two seasons and would rather pay twenty dollars for one than do without it.

Yours respectfully,

JULIAN ADAMS.

These implements are for sale, by the subscribers at their retail store,

J. B. BLOSS & CO.

No. 22 Monroe Avenue, Detroit.

THE GREAT PREMIUM MOWER.

THE AULTMAN AND MILLER

MOWING MACHINE.

BUGEY MOWER.

AULTMAN & MILLER'S

PATENT.

PATENTED BY C. AULTMAN & L. MILLER.

To which was awarded the First Premium,

a Gold Medal and Diploma, at the

Great National Trial at

Syracuse, N. Y.,

July, 1887.

MANUFACTURED BY

C. AULTMAN & CO.,

Canton, Stark County, Ohio.

After tolling and experimenting for many years, we have finally succeeded in getting up a machine that is perfectly adapted to cut both Grain and Grass. The public are already aware that we have been manufacturing a Mowing Machine that has been unrivaled in any market.

But the Farmer wants a machine that will cut both grain and grass, provided he can get a combined machine that will mow as well as a machine made expressly for mowing. This we furnish in our *Great National Trial*.

First.—We have a perfect Mower, having several advantages over all other Mowers, and no disadvantages, which will be readily seen by examining some of its points of excellence.

Second.—We have a perfect Reaper, which has all the advantages of a single machine, and the only true way of delivering the grain at the side of the machine.

We have a cutter bar and platform for cutting grain, independent of the Mower, so that in changing the Mower into a Reaper, we need not use any other machine.

In having two cutter bars, one for grass and the other for grain, each is perfectly adapted for doing the work it is designed to do, thus avoiding the great difficulty heretofore existing in combined machines, in having the cutter bar either too long for grass or too short for grain.

This machine has been thoroughly tried, both in grass and grain, having had a number in use the past harvest.

The following are some of its points of excellence as a Mower:

1st. It has not one pound of side draft.

2d. It has no more weight on the tongue, or horses' neck, than a wagon.

3d. Its draft is only 275 pounds—so reported by the Committee at the Ohio State Fair, 1887.

4th. It runs on two wheels which serve as drivers.

5th. It has an adjustable cutter bar and accommodates itself to an uneven surface of the ground.

6th. The cutter bar is in front of the driving wheels and the seat in the rear. Thus enabling the driver to see the operation of the cutters, without interfering with his driving. Also, avoiding all danger of falling into the knives.

7th. The driving wheels have no cogs on them, but drive the gearing by means of pulleys and ratchets.

8th. By means of these pulleys and ratchets, the knives cease to vibrate in backing the machine.

9th. The driver, while in the seat, can see every bolt, box, and all the gearing within the machine in motion.

10th. The gearing is all permanently arranged in the center of the frame, distant from the driving wheels, thus avoiding all tendency of its being clogged up with mud or dirt thrown up by the drivers.

11th. The cutter bar being attached to the machine by means of hinges, can be folded up on top of the machine without removing the connecting rod, knife or track cleaner.

12th. The pulleys on the driving wheels can readily be thrown out of gear, and by folding the cutter bar as above stated, renders the machine as portable as a common cart.

13th. There is a wheel on the shoe next the gearing in front of the cutter bar, thus avoiding all tendency of clogging at the near shoe, in passing over cut grass.

14th. The off shoe is only 2 1/2 inches wide, and the last knife cuts no more than any other, therefore leaving no ridge or high stubble at the end of each swath.

15th. The cutter bar can be raised or lowered by means of an adjustable steel spring shoe at off end, and a slot in the near shoe where the wheel is attached.

16th. There are no nuts or screws at the connecting rod, which are always liable to cause more or less trouble by jerking loose, but use a gib with a spring nail and a ratchet key, thereby avoiding all possible chance of shaking loose.

**Points of excellence as a Reaper:**

1st. It has all the advantages that the Mower has in the gearing, connecting rod, and draft for the horses.

2d. The grain is delivered at the side, so that a whole field can be cut without taking any of it up.

3d. The driver's seat is the same as on the Mower, affording him a free view of the operations of the machine.

4th. The raker stands at the rear of the platform, which is the best position for delivering the grain.

5th. The raker, with one motion, throws the grain to the side, then delivers it in the rear; thus avoiding the difficulty of dragging the grain from one gavel to another.

6th. The platform can readily be raised or lowered to suit all kinds of grain or ground, by means of two screws, at near side, and slot at off side, when off platform.

N. STEELE is the travelling agent, and is now soliciting orders in this State.

All letters of inquiry, or requesting further information may be addressed to

Dexter, General Agent,

BLOSS & CO., Special Agents, Detroit.

## 100,000 WILSON'S ALBANY STRAWBERRY FOR SALE.

THIS VARIETY yields more fruit per acre than any other. It is a new variety, and is now being raised in large quantities. It is a new variety, and is now being raised in large quantities. It is a new variety, and is now being raised in large quantities.

Also 20,000 imported strong 1 year old pear stocks.

Address J. SLOAN, E. Corning, Jr., Nursery, Albany, N. Y.

11-4w

## THE TROTTER STALLION HAMBLETONIAN.

Will stand for mares the ensuing Season commencing April 4th, as follows:

At JOHN CLARK'S, Milford, Monday and Tuesdays;

At JOHN HATHAN'S, New Hudson, Wednesdays;

At SAM'L LATHROP'S, Northville, Thursdays;

At JAMES ROOTS, Plymouth, Fridays and Saturdays;

Leaving each place at 5 o'clock P. M.

From the general complaint of poor crops last year I have concluded to reduce the price of my horse for this season.

**Terms:**—\$10 the Season; \$15 to insure.

Season money to be paid when the Mare is first served, or a good note given for the amount. Persons, parting with mares before foaling time will be held responsible for the season money. All mares not regularly returned will be held by the season. Pasture furnished at fifty cents per week. All accidents and escapes at the owner's risk. Season to close on the first of August, 1899. Grain will be received for insurance money, delivered at my farm on or before the first day of February 1890, at Detroit prices.

HAMBLETONIAN was awarded the First Premium at the Oakland County Fair, October, 1887.

At the State Fair in Detroit last fall his colts took more premiums than any other Stallion in the State.

**Pedigree of Hambletonian.**

HAMBLETONIAN was sired by Geo. Barney's horse Henry, of Whitehall, Washington county, New York—

by Imported Signal, out of a Messenger mare. Hambletonian's dam, Bishop's Hambletonian was sired by Imported Messenger. Hambletonian is 15 1/2 hands high, weighs 1100 pounds; possessing fine action, with great powers of endurance; untrained, but shows good evidence of speed. Hambletonian is a beautiful blood bay, black mane, tall and limbs, without a white hair upon him, and for style can not be excelled by any horse in the State.

F. E. ELDRED, Detroit.

HIRAM E. Cady, Agent.

**A BERSHIRE BOAR FOR SALE.** The undersigned offers for sale a pure bred Berkshire boar, at a reasonable rate. His dam was bred by L. G. Morris, of Mount Fordham, N. Y., and his sire by Col. John Prince of Sandwich, C. W. Apply to

F. E. ELDRED, Detroit.

March 10, 1899.

11-4w

**FOR SALE**

AT THE

AMERICAN SEED STORE

22 Monroe Avenue, Detroit, Mich.

**PEABODY'S PROLIFIC CORN!**

A NEW VARIETY.

It grows from three to ten ears on a stalk. Six ears planted by John W. Shaw, last year, produced one hundred bushels of sound corn. This Corn was originated by a careful scientific cultivator on Long Island. It comes up stout and is more forward than common corn. Plant two kernels in a hill, four feet apart each way.

PRICE—Fifty cents per quart, or fifteen cents per ear.

**HUNGARIAN GRASS SEED!**

100 BUSHELS FOR SALE.

This justly celebrated Grass Seed has been raised for two years in Iowa and Wisconsin, and to some extent in Illinois and Michigan, the past season. All who have raised it, invariably bear testimony to its unprecedented yield. In some cases as high as seven, and rarely under four tons to the acre of most healthy and nutritious Grass. It yields from 25 to 40 bushels of seed to the acre, which makes good feed for horses and cattle. They not only eat it with great relish, but it keeps them in a more healthy and better condition than any feed yet tried.

PRICE—\$3 per bushel.

We subjoin the following

**Testimonials:**

OTTUMWA, IOWA, Jan. 22, 1898.

To whom it may concern:—This is to certify that crops of Hungarian Grass were entered for premiums at our Agricultural Fair last fall, varying from five to over seven tons to the acre of hay, and thirty-seven bushels to the acre of seed, and affidavits were made to the same.

This section of country was visited by severe drouth the fore part of last season, so that the crop of Timothy was scarcely worth harvesting, yet the Hungarian was good, average, but not less than four tons to the acre throughout the country. Its qualities for feeding are spoken of in high terms by all who have used it.

L. D. MORSE,

Secretary of Wapello Co. Agricultural Society.

SALINE, MICH., Jan. 1899.

Mr. J. J. Lyon, Sir:—In reply to your question asking "how I like the Hungarian Grass," I will say that it is the best thing I have ever raised for feeding stock, and I shall not raise any other hay hereafter. It cannot be too highly recommended.

Yours,

SAMUEL ROBINSON.

Mr. Irwin Peck, of Ypsilanti, says that "Farmers had better plough up their Timothy meadows and sow the Hungarian Grass, as ten acres of it is worth more for stock purposes than twenty acres of any other hay."

Farmers who have raised it, unite in giving the same testimony relative to its merits, as do Messrs. Robinson and Peck.

This unrivaled Grass has been raised in several counties in the State of Michigan, the past season, by some of the most extensive Farmers in the State, who recommend it as surpassing all other crops for stock purposes.

It is a new variety, and is now being raised in large quantities. It is a new variety, and is now being raised in large quantities. It is a new variety, and is now being raised in large quantities.

For sale in quantities to suit.

M. T. GARDNER & CO., Seedsmen.

Detroit, February 24, 1899.

6-5w

**DRAIN TILE!**

WE KEEP CONSTANTLY ON HAND THE

different kinds of Drain Tile, at

PENFIELD'S, 103 Woodward Avenue.

**SHORT HORNS FOR SALE.** I hereby offer for sale several head of young full blood Shorthorn stock, bred from my bull LEROX, to which was awarded the first premium of the State Agricultural Society in 1898. For further particulars address, D. M. UHL.

Ypsilanti.

7-2m

**BLOSS & CO.,**

No. 22 Monroe Avenue, Detroit.

11-4w

**MICHIGAN SOUTHERN**

AND

DETROIT, MONROE AND TOLEDO

RAIL ROAD.

1899. WINTER ARRANGEMENT. 1899.

ON and after Monday February 7th, 1899, until further notice Passenger Trains will run as follows:

From Detroit for Cleveland, Cincinnati, New York, Adrian and Chicago at 1.00 P. M. and 4.35 P. M.

From Cleveland for Detroit at 11.40 A. M. and 8.00 P. M.

From Toledo for Detroit at 7.50 A. M. and 8.00 P. M.

From Chicago for Detroit at 5.00 A. M. and 8.00 P. M.

Trains arrive at Detroit from Chicago, Adrian, Cleveland and Toledo, at 12.20 P. M. and 8.00 P. M.

**CONNECTIONS:**

The 1.00 P. M. train from Detroit connects at Toledo with the Express Train for Chicago, leaving Toledo at 4.45 P. M., also at Adrian with the same Train, arriving in Chicago at 4.50 A. M.

The 4.35 P. M. Train connects at Toledo with the Express Train over the Air Line, leaving Toledo at 12.50 A. M., arriving in Chicago at 11.45 A. M.

Sleeping cars accompany the 4.45 P. M. Train from Toledo and 8.00 P. M. Train from Chicago.

JNO. D. CAMPBELL,

SUPERINTENDENT.

B. P. KNIGHT, Agent, Detroit.

7-1f

**J. L. HURD & CO.**

DETROIT MICH.

Produce and Shipping Merchants.

Agents and Consignees for the following Lines:

AMERICAN TRANSPORTATION COMPANY.

CAPITAL \$900,000.

WESTERN TRANSPORTATION COMPANY.

CAPITAL \$900,000.

AND THE NEW YORK CENTRAL R. R. CO.

We would respectfully announce to the Millers, Merchants and Manufacturers of Michigan, that the recent reduction of Canal Tolls on the Erie Canal, will enable us to carry eastward, from Detroit,